

Library University of Michigan

# THE MICHIGAN FARMER,

## A WEEKLY JOURNAL OF AFFAIRS

### Relating to the Farm, the Garden, and the Household.

NEW SERIES.

DETROIT, SATURDAY, MARCH 31, 1860.

VOL. 2., NO. 13

#### The Michigan Farmer,

R. F. JOHNSTONE, EDITOR.  
Publication Office, 130 Jefferson Avenue,  
DETROIT MICHIGAN.

The MICHIGAN FARMER presents superior facilities to business men, publishers, manufacturers of Agricultural Implements, Nursery men, and stock breeders for advertising.

**Terms of Advertisements.**  
Ten cents per line for each insertion when ordered for one month or less.

All orders with advertisements, should state the number of weeks the advertisement is to be published.

**Subscription.**  
We will send one copy for \$3.00; three copies for \$5.00 five copies for \$8.00, and ten copies for \$15.00. No paper sent without the money in advance.

We will also send the FARMER, and the Atlantic Monthly, or Harper's Magazine to any address for \$4.00 Also the MICHIGAN FARMER and the Horticulturist or Hovey's Magazine of Horticulture to any address for \$3.50.

#### CONTENTS.

THE FARM:	
Some notes by the way.....	97
Cheese making at the Williams Dairy.....	97
Another Horse for St. Joseph County.....	97
A hint about roads in the Spring.....	97
Fattening Cattle and Steaming Food.....	98
Economy.....	98
The Chinese Yam.....	98
Bones.....	98
Clay and Lime Composts.....	98
A Prolific Fowl.....	98
A French Potato.....	98
THE GARDEN AND ORCHARD:	
When Should an Orchard be Pruned.....	99
New Rochelle Blackberry.....	99
Fruit Culture in Kent County.....	99
Gas Tar on Trees.....	99
HORTICULTURAL NOTES:	
The Peach Worm—Large Peach Orchard in Wash- tenaw—A White Blackberry—A New Favorite for the Flower Garden—Production of Large Fruit— Early Peas—Prizes for Essays—A New Cucumber.....	99
Culture of the Apple in the West of England.....	99
How to raise Seeds, and when they Germinate.....	100
Wheat at the South.....	100
Hens.....	100
EDITORIAL:	
Editorial Miscellany.....	100
State Matters.....	101
The Foreign Breadstuffs Market.....	101
Political notes of the week.....	101
Mexican News.....	101
Foreign events.....	101
Scientific Intelligence.....	101
General News.....	101
HOUSEHOLD:	
Poetry: The Test of Friendship.....	102
City Fashions.....	102
A Reply to Mr. Stunner.....	102
Noted People of the Bible.....	102
What will Subdue Eddie?.....	102
Cleanliness.....	103
Seeing the Queen.....	103
Enigmas and answers.....	103
Markets.....	104

#### The Farm.

##### Some Notes by the Way.

**The Crops**—During a brief visit to Marshall we had an opportunity of taking a rail-road glance at the wheatfields between this city and that place. Nearly all the fields which we saw seemed to have passed through the winter season and come out in a very promising condition. The season for the past month has been rather dry, and on some of the light soils, the color of the crop is sometimes brown, but a few days of warm weather and spring rains would make it start with wonderful vigor, as it is in first rate condition. One particular point we noticed as a good sign, that we heard no complaints of the condition of the crop. None had been frozen out, and it was looking on all sides as well as could be desired.

**The Tillotson Stock**—H. A. Tillotson has Farmer Boy, the son of Orpheus from Viola. This bull is now a year and nine months old, and is in fair growing condition. He has been well taken care of, and is doing credit not only to the owner and breeder but also to the premium awarded by the State Society. He has much the style of his sire, but is not so dark a roan. His quality is inherited, and proving almost as excellent as that of Orpheus himself. When we state that his weight at the present time is fourteen hundred pounds, and that he has no appearance of being overfed, it will be known by stock men that he is a pretty good yearling. His head is very fine, and his chest is both wide and deep, inclined to be a little heavy in the neck, but with a good level back, coming out very well at the tail. Mayflower, a large, red cow formerly owned by M. L. Brooks, of Northville, was shown, and is in calf to Mr. Brooks' imported John O'Gaunt. She had a very fine

six months' calf in the yard that was a beauty. This calf was by John O'Gaunt also, and if it is a specimen of his stock we are satisfied that he is going to make his mark in this section of country. We have seldom seen a handsomer head and body than this little heifer presented, and her skin was rich and velvety at could be desired.

At S. P. Wormley's, we found also a white heifer that attracted attention at once, and the moment our eyes lit upon it we asked the proprietor where he got it, and the answer was from Crippen's Orpheus. This bull is leaving his traces where he has been used, and there is no mistaking his stock. It will compare well in quality, and general character with any stock we have yet seen.

Mr. Wormley is a great breeder of fine poultry. We saw in his yard a very large number of the very finest bred Braham fowls, and he keeps no other sort. Those who want good fowls of this variety could not get a supply from a better place. But he has a variety of fowl that is much superior to this, and which it is difficult to get good sure bred—these are Grade Wild Turkeys. Two gobblers which he had in the yard were three quarters wild, and displayed a magnificent plumage, and when the sun glanced on it the iridescent hues of gold, azure, green, bronze and violet, were dazzling and most beautiful. These birds also grow to great size and weight. Several of last spring's pullets were very easily fattened up at Christmas last to thirty and thirty-two pounds weight. These birds thus fed are not very wild, but remain round the yard after once accustomed to it.—Mr. Wormley last January presented us with a cock of his own breeding, that we have turned out, and have found him perfectly tame; he keeps close to the house with his mates, and he is a grand bird, but has a few traces of the wild habit. Sometimes he will, when chased, lie down in a hollow, or in some nook of the fence, lay his head close to the ground, and unless almost trodden upon, he will not start up, nor will it be known where he is. Mr. Wormley has one pure bred wild hen bird, and all his other hens are high bred crosses of the wild Turkey, ranging from three quarters to seven eighths.

**Ayrshire Stock**—The readers of the FARMER will recollect that about two years ago we called attention to some very fine bred Ayrshire stock that had been brought into the vicinity of Marshall, and a bull was mentioned as a particularly good animal of that breed. We saw some of his calves, from the common cows of the country, and they are proving to be quite an improvement. Col. Dickey has one at his place that shows as fine a development for milk as can be seen in any animal of her age. Mr. C. T. Gorham has also a remarkably fine heifer out of his unequalled milk cow. We were informed also that this Ayrshire bull was highly thought of by all who had tried the effects of this cross, and that it was so far an improvement.

**Admiration**—The horse which Dr. A. L. Hays of Marshall has brought into Calhoun county with a design to improve the stock of that section, of course claimed our attention. Admiration is unquestionably a horse of high breeding. He has not yet shed all his colt's teeth, so that he has time to expand. He stands now close to sixteen hands high, possibly somewhat under that standard. His color is a very bright clear bay, with deep black mane and tail. His mane is fine, and rather full, and his tail is long and sweeping. His head is remarkably fine, broad across the eyes which are prominent, with a good muzzle; the jaws clean and beautifully cut up under the throat, and joined handsomely on to the neck. For a horse but four years old he shows a magnificent depth and width of chest, which is particularly roomy. He stands low on his fore legs, which are short, well made, and very muscular. His shoulder is rather upright, and his back is long, but he is strong over the loin and carries out his form straight to the tail which is set high and level with his back. He is well quartered and shows great evidence of strength. He is evidently got well up for the very purpose he has heretofore been used, namely for getting hunter stock. When standing he covers much ground, being long and low, with a very deep

body. His action either walking or trotting is elegant light and springy, and his whole appearance betokens a horse of much energy, high breeding and great endurance with a constitution that will wear like iron.

#### Cheese Making at the Williams Dairy.

Last week we gave the general results gathered from the tables of statistics kept by General Williams in his diary of the production of his herd of milk cows. We now copy the rules he follows in the preparation of cheese.

**How to cure Rennets.**—The calf should be killed twelve hours after nursing the cow. Take the rennet out and turn it, scrape it with the back of a knife, which cleans it sufficiently. Then put in about a handful of salt in the inside, rub salt thoroughly on the out side, put in a crooked stick and hang it up to dry, in a very dry place. When thoroughly dry, put them in a thick canvass bag so as not to be disturbed by flies, hang the bag in a dry place. The older the rennets the better they are, if kept properly. New rennet has the tendency to make a cheese huffy, light, spongy and porous.

Another method of curing rennets is to put them in salt and brine sufficiently strong to keep them.

**How to Prepare the Rennet for Cheese.**—Take two rennets, put them into two gallons of water, put in sufficient salt to keep them, say about three handfuls. Let them stand two days, rub them out thoroughly with the hands. Then turn them and rub them on the other side. Let them stand another day, and rub them out thoroughly again, and squeeze out all the liquor you can. Then put into about one quart of water, and put in a handful of salt. Let them stand three days, then rub them out thoroughly. The strength is nearly or quite suspended. Throw them one side, then put the two liquids together, they are now fit for use. Put the liquor in a jug and cork it up.

When the rennets are in soak if there should a scum arise skim it off, and add more salt.

**Rules to be observed in making Cheese.**—Set the milk at 90 deg. put in rennet, sufficient to curdle in about three-fourths of an hour, or a little more. When the curd will break across the finger, without adhering to it, it will answer to commence working. Take the dairy knife manufactured by D. G. Youngs, Cedarville, N. Y., cut into small squares both ways, let it stand until it settles, so as to cover the whole with whey; if quite cold on top bring it from the bottom with your hands, again commence cutting with the knife moderately till quite fine, bringing the curd from the bottom and sides with a skimmer in one hand, in order to prevent cutting the vat. Raise the heat to about 95 deg., continue working till the curd is reduced to nearly the size of a kernel of wheat, perhaps an hour or more, then raise the heat to 100 or a little more. If sufficiently fine, let it stand, stirring it occasionally till the curd will squeak pretty smart in the teeth, or when taken in the hand and the whey pressed out, it will easily fly apart when rolled through the hands. It is then sufficiently cooked to let off the whey. Do so and salt at the rate of about 2 lbs. to 100 lbs. of curd. This is the rate when cheese is designed to be sent to market in from two to six weeks from the press. Cheese intended to be kept the season through, should have nearly one third more salt. The tendency of salt is to destroy the rich buttery properties of cheese, and no more should be used than is necessary to prevent it from becoming strong. When partly cool, put the curd in the press, let it remain before turning till it is joined or united entirely through. Turn it, let it remain in the press till the next day, take it out, place it in a moderately warm room, and grease sufficiently to prevent cracking, and turn every day. If not salted too high, and kept sufficiently warm, it will pass from the curd to the cheese state in about two or three weeks, when it will save down and spread like butter and has a pleasant taste, it is then fit for market; box and send forward. It is necessary the press should force the whey nearly or quite entirely from the cheese; when that is the case the cheese

will have a smooth rind and present a beautiful appearance, but if the whey is not well separated, the rind will in curing become wrinkled and have a rough surface; such cheese will be more porous and more likely to have a bad flavor than with a close body and a smooth rind. When the milk is set sufficient, arnotto dissolved in lye should be added to give the curd a cream color. In hot weather the milk may be set as low as 84 or 85 deg. The richer the milk the more heat is necessary in cooking. In the fall it may require 105 to 110 deg. to do the work effectually. The bandage may be put on when turned in the press or after being taken out; should be about two inches wider than the cheese is deep, so as to lap over the edge an inch or so. No cheese maker should be without a tryer, and should try his cheese occasionally to see if they are right. The case of sour milk, as sometimes happens when cheese is made one in two or three days, set the milk at a lower temperature, according to the sourness of the milk, say 80, and if quite sour, lower still. Run the whey off as soon as the curd has arrived at the same firmness as that of sweet milk when finished. Should it become hard, as it will if not wheyed off soon enough, salt less than the above rules prescribe.

The above rules are not to be rigidly adhered to in all cases, but may and should sometimes be varied, as the good sense of the cheese maker may determine.

To the above we find the following additional remarks, the result of personal observation.

1. When the milk has changed, the cheese made from it should be turned in the press as soon as possible, or the cloth will stick, and tear the cheese to pieces.
2. Milk strainers should be boiled out and rubbed on a washboard once each week. They should also be rinsed in cold water and washed out in two or three waters, and scalded every day.
3. A cheese should be turned over when taken out of the press, and set on the side that was uppermost when in the press. It should be greased on the top only the first day, and all over the second day.
4. In cool weather the temperature of the cheese room should be warmed before the cheese is turned and greased.
5. To make the cheese smooth and prevent the cloths from sticking, turn the cheese in about thirty minutes after it is put in the press.
6. When the cheeses are from fifteen to twenty days old, the cheese should be well rubbed with the hand, and as little grease as possible used in rubbing and greasing them. The tables on which they are placed to be rubbed, should be kept most scrupulously clean, and free from crumbs or dust.

During the month of June the following are the results of the observations made:

1. The temperature of the atmosphere at the time of setting the milk ranged from 46 degrees to 78, but the greater part of the time the range was from 58 to 66.
2. The temperature of the milk when first milked ranged from 94 to 99 degrees, but the average temperature was generally 94 to 96. When set the temperature of the milk was generally 88 to 90, and the temperature when scalded was 100 to 104, but for the greatest number of days 102 was the average.
3. The time occupied in heating the milk was from an hour to an hour and a half, and the time during which the milk was kept at the scalding or maximum temperature was generally one hour.
4. The milk being in quantity about 90 gallons per day, and when taken to the cheese house at a temperature of 94 degrees, 14 pounds of ice were used to reduce it to the temperature at which it was set, viz. 87 or 88 degrees.

#### Early Potatoes.

Take early Junes, or some other good early variety of smallish size, about the 15th or 20th of March; place them in the hot-bed as you would pack eggs in oats, as closely together as possible and about one inch beneath the surface of the soil; in some 20 to 30 days they will be sprouted sufficiently to remove to the open ground, which can be done by carefully separating them from each other, care being taken, however, not to break them from the potato; and you can safely calculate on feasting on good ripe esculents in two months from the setting of the plants.

#### Another Horse for St. Joseph County.

**FRIEND JOHNSTONE**—Dear Sir: I send you a description of a stallion called Flushing Boy, purchased of A. C. Jennings, O. by a company of farmers and others interested in improving the stock of horses in our county, at the head of which stands the Hon. E. S. Moore & son, A. G. Moore of Three Rivers, St. Joseph Co., Michigan.

Flushing Boy is four years old next June, a beautiful ebony brown, nearly sixteen hands high, of powerful bone and muscle, of beautiful symmetry, and with a grace of action rarely if ever excelled. His beautiful head and ear, fine, pleasant hazel eye, long lofty neck, waving silky black mane and tail, deep chest, slanting and well placed shoulder, and long hip with precisely the right angle, forming a short strong back. All these with his pleasant disposition and graceful easy action make him one of the finest colts I have ever seen.

With such horses as this, Vermont Hero, Zingaro, and other fine horses for stock, we hope to keep pace with the age.

My excuse for writing the above is the interest you seem to take in the welfare of the farmer and the improvement of our stock and State in general.

I have no doubt Mr. Moore will furnish you with a pedigree of which Flushing Boy has a good one, (being closely connected by blood with the best horses of the age) and such as will please

EVERY ADMIRER.

Three Rivers, March, 26th 1860.

#### A Hint About Roads in the Spring.

J. Meers in the *Boston Cultivator*, observes:

Road-making is of two kinds—building, or constructing new roads and repairing those already made. As the time has arrived when we should be up and doing, I will confine myself to the latter.

Assuming that the roads in November last, or at the setting in of the frost, were of good form, viz., the cross or transverse section represented by a pair of rafters having an elevation of not more than one foot at the centre, to 38 feet width, with straight and right lines, not curved—the longitudinal section not level, but having a pitch of about one foot in 130 feet—the whole smooth and compact. On the coming out of frost in the spring, this surface becomes corrugated, or deeply rutted by wheels drawn through it; the water stands in these ruts or is driven through them by the wheels, or runs from the top of the hills to the flats below, where it stands, softening the material into mud deepening the ruts and obstructing travel until it evaporates, and then the tread of the cattle and roll of wheels consolidates this corrugated surface, or system of water-tight gutters, so that the next rain floods them, and repeats the process, until the surveyor tips on his cartload of gravel, spreading it around the heap, say three inches on the ridges, and seven or eight on the ruts, where it looks smooth and nice until a heavy team cuts them out, and leaves the road worse than before.—Such things have been; but "We would show unto you a more excellent way."

A stitch in time has saved nine so long, that we now say it will save ten. Therefore, as the frost is coming out, let the surveyor inspect his roads, let off the water from the ruts to the side gutters, and from the hills, and when the gravel hardens after the frost is out, diligently apply a heavy harrow, attached to the transom-bolt of a pair of forward wheels, and a scraper, likewise, and in this way pass over to the gee side of the rutted track, coming back on the haw side, and pick off the stones. Three men, with two yoke of oxen, will press four miles a day and put it in fine order, at one-tenth the expense often laid out to get a poor road, for a shorter time. Try it, and we will talk again of this matter, for there is no reason why the material replaced in April should not be as good as it was in November.

The St. Joseph Traveller states that efforts are being made to form an agricultural society in the northern part of Berrien county.



### Fattening Cattle and Steaming Food.

EDITOR MICHIGAN FARMER:—Sir, A correspondent in your issue of March 3d says: The question is often asked him if he can make it pay to feed cattle during the winter, and he answers, yes; that he has made it pay for the last six winters.

Now the same question is often asked me, and I have always answered no. Therefore when I saw Mr. Cobb's remarks I naturally figured a little to see if he or I was mistaken, or if I had been losing while my neighbor had been making money. I think you will admit that my barns, sheds, yards, racks and boxes are as convenient as I could well get them, yet I am perfectly satisfied that I invariably lose money when I attempt to make beef on corn. Let us take Mr. Cobb's figures which unfortunately are much too meagre, and see how much he probably makes. Suppose his cattle weigh 1200 pounds when he buys them in the fall, and that he feeds, as he says, eight quarts of corn per day per head, puts them up the first of October and turns them off the first of March. We will take the prices of this winter in this market:

Acres.  
Dr. To 1 steer 1200 pounds, 2c per pound... \$24.00  
To 8 quarts corn per day, 150 days... 12.54  
To 1 1/2 tons timothy hay, \$8 per ton... 12.00

Total cost ..... \$48.54

Contra Cr.  
By 1400 pounds beef at 3 1/2 c live weight ..... \$49.00

Allowing the manure will pay for the labor, the above leaves him \$6.54 behind, admitting he can make the animal gain 200 pounds in the five months, which I think very questionable. Corn has brought 53 cents and upwards the most of the winter, and beef is now worth 3 1/2 for the best. I have fed my cattle various ways, corn meal clear, meal mixed with cut hay or straw, and meal steamed, and I cannot get those figures to reverse themselves. My plan now is to stable my cattle at the usual time, and feed hay with, say one pint to one quart of meal per day, turn them into the first grass and sell about the fifteenth of June. Will not Mr. Cobb tell us his plan and give his figures more at length?

And while on the subject I will answer the query of a correspondent who asked of Mr. Heydenbark as to how far he can carry steam and have it effective, and what the loss is. I have a common steam boiler, ten feet long, placed two hundred and twenty feet from my barn, and leading from the boiler to the barn, a three-fourth iron pipe leading to a large box made of two inch plank, matched, and so made that it can be tightened by driving wedges, as steam is a terrible thing to season wood. At the lower end of the pipe I have a cock to let off the water which has condensed in the pipe. One and a half pounds of steam in the boiler reaches the barn in three minutes, throwing out about two quarts of water. Now for the way it works. I fill my feed box at night with what I want to steam, go to the boiler to make my fire, and let on the steam, when sufficient has accumulated, and leave it leaving the arch filled with wood. In the morning the box is filled with food thoroughly cooked and warm. Cattle do not eat it well at first, for say two or three days; after that they will show just as much repugnance to anything else, except hay. I have been feeding sheep mainly this winter, and could not get them to touch it.

In carrying steam as I do, I have to be careful to open the lower cock in my pipe and let off all the condensed steam, for which purpose the pipe must be laid with sufficient fall for the water all to run to the cock. Mine has never frozen, but much care has to be used.

Yours truly,  
F. E. WALBRIDGE.

Kalamazoo, March 9th, 1860.

As the writer observes, his "yards, racks, and barns" are well divided, and very convenient. It is some three years since we were at his place, and he was then preparing to put in the steam boiler of which he speaks. He has therefore had three winters' experience with it since that time, in its management. In the above communication however, we are not informed how he uses his steam apparatus, so far as regards the preparation of the food he steams. In what form is the food when he puts it in the steam box. Does he steam his hay with his corn? Is the corn ground or whole? If he steams hay, corn, stalks, or other substances with meal, does he cut the article before he places it in the box? Has he compared the weekly or monthly increase of cattle or other stock fed on steamed food, with their increase on the same kind and amount of food fed unsteamed? Has he used roots in feeding? These are questions relative to the use of the steam apparatus, that are of interest, and which have a bearing on that subject, and which the agri-

cultural community are much interested in at present. There are also two or three other points relative to the feeding of cattle which are worth attention. Mr. Cobb, it will be noted in his communication, lays much stress on the selection of cattle to be put up for winter feeding operations. In some instances two year olds have been taken and fed advantageously, in others the most money has been made from four year olds, that have been sold when coming five. Here is a point which seems to be unsettled, namely, at what age is it most profitable to put up steers for fattening purposes? Take a class of two year old steers, that will be three years old in spring, and as they are generally picked up, they will not average over 1000 pounds live weight, and hardly that. Kept for six months, these cattle have not stamina enough in them to increase, even with good keeping, over 150 or 200 pounds during the time they are fed from November till April. Then take a class of three year olds that will average 1200, their increase will hardly go over the amount set by Mr. Walbridge. Again let us take a lot of four year olds. Will the interest on the original price, the cost of food, and the cost of taking care of them, be paid back at the end of five months' feeding better than by using two or three year olds, for that purpose? Here is the gist of the meaning of the word "selection," and it is in this that the practical skill of the feeder comes into operation. Some animals will ripen as quick at two year o'd, as others will at four or five. Others cannot be made to ripen at that age, profitably. They will get into good condition with good feeding, but they will not pay as well to fatten at three years of age. For they will not make beef as fast as they will when they get a year or two more of age, and only the experienced eye and hand can tell this. It is, in reality, a very unsettled question as yet, at what age it is most profitable to buy and put up cattle for fattening purposes, though the choice is generally given to age between three and five years.

### Economy.

MR. EDITOR:—In reading your paper, I noticed an article headed, "Economy &c." above the signature of E. T. Bryan. His calculations and figures are no doubt correct, if his theory was only so. He seems to place but little value on clover tops as manure for wheat, and says: "At this age of agriculture, it is a conceded fact, &c." I would like to know who by; I am sure the numbers must be "few and far between." At least his system practiced in western New York would make hard times in earnest. Farmers have tried both ways; and those who have out their clover and plowed merely the sod under have gradually, in time, worn their land out, and at last have had to resort to other manures at a heavy expense. Now I have become satisfied that the clover tops contain about two-thirds of the amount of fertilizing properties, and the roots nearly one-third, and that it is the cheapest, and most economical manure for us to use at present on our wheat lands. Now your correspondent points to the saving of \$12.07 the value of the clover hay; but let us look at the subject carefully, and see if the cutting and sale is not a dead loss instead of gain.—The wheat plant is a great lover of ammonia (nitrogen and hydrogen); and a bushel of wheat must have five pounds of nitrogen. A crop of clover equal to one ton of hay, contains about forty pounds of nitrogen, and such a crop plowed in would give an increase of eight bushels over the normal produce of the soil, to say nothing of the clover roots, which, as I have said, are equal to nearly half the crop of clover, and thus making on the whole an increase of twelve bushels, which would amount to \$12.00 gain according to your correspondent's value per bushel; almost equal to his gain by the sale of hay, and still you will perceive, that I have reckoned only one ton of clover to an acre, whereas he has two, which ought to make an addition of eight bushels more, and its effect will be felt somewhat another year. However, we have found that clover alone will not keep up the fertility necessary for a long course of wheat crops, for we find that a ton of clover contains about 960 lbs of oxygen and 780 lbs of carbon beside the ammonia spoken of, which would, by accumulating in the soil for a series of years, produce "too much straw," especially on soils in which there is not an abundance of lime. How can this be remedied? We have found that by adding animal manure, will do it.

Plowing in clover is the best thing we can afford to do; and in a few years, when by this means the straw grows too rank, we will have spare capital to invest in more stock and artificial food. And as to selling hay I have found it to be a very bad policy, but consume

it on the farm and by every means save all the manure. For when a farm is "going down hill," as the saying is; it is an "up hill business" to fetch it back.

It must be remembered however, that I am speaking strictly on wheat lands. If there are soils that are not sure for wheat, I would agree with Mr. Bryan to keep them in grass so long as they produce a good growth, however, with an occasional top dressing of manure, if not needed for spring crops. He speaks of "one acre of green clover grass, that would, when cured, make two tons of hay, if put in one pile, in a green state, and become well composted, would not make more than two loads of manure." It must be remembered that there is a great difference in the quality of manures; that one load of such, or hay manure, or night soil, is worth five or six loads of barn yard manure; besides putting it in a pile to rot is ruinous policy; for by fermenting, at least one half of the ammonia and enriching gases escape, and float off in the air over your farm, ready to be brought into the harness, perhaps, by some skillful neighboring farmer, who has his clover and other ammonia-absorbing plants in his broad fields ready to catch and devour it; and at length turn it in to the soil, and at your expense obtain the lion's share. Perhaps you will say that in your new State there is not much need of manure, as the soil is rich enough; but the farmers there in future, will look back as they do now here, and wish they had kept the land up from the beginning.—What we want is experience and practice, and not to depend too much on theory.

I fear I have trespassed too much already on your time and patience; being pleased so far with your paper, (having taken it but a short time) and feeling prompted to write from seeing the remarks of your correspondent, I thus ventured to do so. If you consider these lines of any use for your paper, "well and good," if otherwise, twist them up into lamp lighters for your family (if you have one, like as your able correspondent mentions), where they may be of little value.

Yours Truly,  
HENRY C. ADGATE.  
East Bethany, N. Y., March 20th, 1860.

### The Chinese Yam.

We note that the dioscorea is coming into more favor among the English gardeners and cultivators. The Messrs. Ivery exhibited at the London Horticultural Society's meeting roots of the yam weighing 6 pounds 6 ounces, and 38 inches in length, the growth of a single year. Under cultivation, it is said also that the yam is assuming a more globular shape, some specimens having been raised nearly round with a long and somewhat slender neck. The following is a description of the plan of cultivation that has been adopted and found to give most satisfactory results:

In making and preparing the bed, a piece of light ground was marked out about 100 feet long and 7 wide, and trenched 3 1/2 feet deep, well mixing a little good rotten manure as the work proceeded. When all was trenched, the soil on each side, to the width of 18 inches and a foot deep, was thrown on the top to raise the bed and allow a sufficient depth for the roots to grow down. After levelling and raking, a board was used for the workman to stand on and cut out a trench with a spade six inches deep. The sets were then planted about a foot apart, from centre to centre, which admitted six sets across the bed, the board turned over, and a similar trench made one foot from the other, and so on until the bed was finished. The sets were cut from five to six inches long, and no difference was found in the produce from sets cut from the top, the middle, or the bottom of the roots. A considerable quantity were propagated from cuttings the previous year, the small tubers of which were preserved in sand during the winter and planted on a portion of the bed; the produce of these were much smaller than the others, not weighing on an average more than 12 oz. each, the others 2 lbs., some 3 1/2 lbs. This form of the bed admits of the most ready way of taking up the tubers; a trench four feet wide and four deep is dug at one end, and a careful man can take them all out without the least damage. The bed was made early in April.

### Bones.

It is stated that the Messrs. Coe & Co., of Roxbury, Mass., annually work up thirty-five hundred tons of bones, collected in Boston and vicinity. From these bones are manufactured bone meal and superphosphate of lime, the latter selling at \$45 per ton for manuring purposes. We think such an establishment might do a good business in this variety, there being any quantity of the raw material, the only point is that but few farmers would feel justified in making a purchase of manure at such a rate, although it was sure to return double the amount in crop.

### Clay and Lime Composts.

An English writer says, "a compost manure of clay and lime is very generally accessible to the farmer; and the results of its action as a top dressing on grass lands, and as a manure on arable sands, are certain and durable, almost beyond any other substance that is used in the first case of application. Composts of lime and earth are very superior in effect to lime itself, in inferior soils, and on grass lands the duration exceeds any other top-dressing."

Before treating of the compost made of the articles clay and lime, we will first treat of clay, and its construction, and then of lime.

Clay is a mixed body, mostly composed of alumina, sulphuric acid, and water. It is found in vast beds in the alluvial deposit of the tertiary formation, of which chalk, or the most recent condition of lime, forms the basis and is much mixed with other bodies in different states and combinations. The prevailing color is brown or reddish brown, yellow, and sometimes bluish; sandy, gravelly, often solid, more or less unctuous, and soft to the touch, often friable and dry, breaking into small lumps, containing more silex, and loses its plasticity; and perhaps no body is found in a greater diversity of composition, in soils and in slates, and in all argillaceous formations. It enters into all good lands—in fertile soils from 9 to 15 per cent., and in barren lands from 20 to 40 per cent. The absence of it forms a soil too dry and porous, and a superabundance of it constitutes a soil too wet and cold when in a moist state, and contracts and hardens by heat into a condition adverse to vegetable life. Clay is found calcareous, meagre, and unctuous, effervescing with acids, rough and gritty, and containing a greater quantity of alumina. The purest specimen contains upwards of 60 per cent. of sand, and is always mixed with mineral, animal, and vegetable substances. The aluminous base imbibes 15 times its own weight of water without dripping, and retains it with great obstinacy.

Like other substances, the quality of the clay, the mode of its combination with other substances, and the exposure of the combined elements, render it a fertilizer, both in the simple state, and in the condition of a compost with other substances. When found of a clammy or indurated texture, great difficulty is experienced in reducing the substance to particles that can act with and upon the other elements with which the contact will occur. But with calcareous clays, the process is easy. The mass is friable and crumbling, and the dissolution is so fine as to allow an intimate incorporation with the soil. Accordingly very great improvements have been effected by excavating clays of this nature, and laying large quantities of it on the surface of light lands. A moist quality has been conferred on the sandy soil, and more firmness, and a greater consistency. The quantity must be liberal—from 100 to 160 cart loads to an acre—and must be attentively used in the breaking and spreading of the pieces. On the other hand, ferruginous clays, and those of a white sandy and gravelly nature, are positively pernicious, and require to be mixed with substances of a better quality, to correct the noxious property, and also an exposure to atmospheric action, to extract and dissipate the hurtful effluvia. A total alteration must be acted upon the constituents before clays of that nature can be made fertile, either as a cultivated soil, or as an application to other lands.

Sulphuric acid in any form or combination is noxious to vegetable life, and in preparing clay for the purpose of acting as a manure, that hurtful ingredient must be banished, and more friendly qualities introduced. The quantity of acid and water amounts to two-thirds parts of the constituents of pure clay, and being in combination, the destruction of both elements must be effected. Some body must be applied that will act violently and forcibly in disintegrating the mass of clay, in sundering the particles, in banishing the existing properties, and in conferring more valuable qualities by means of reciprocal action and mutual combinations. For this purpose no better agent has yet been found than caustic lime, in a state of hot cinders newly burned. Lime is the oxide of calcium, one of the newly discovered terrigenous metals, which contains in 100 parts about 38 of oxygen. An oxide is a sour pungent body, which draws off every volatile substance without fusing the primitive body; it is the circumstance or state of change, while calcination is the mode of effecting it. By the application of a violent heat, lime loses the water of crystallization, and the carbonic gas is expelled, which in combination with the earthy base formed the neutral salt known by the name of carbonate of lime. In the newly-burnt state it forms a strong caustic, and has a very powerful corrosive quality, and the alkaline charac-

ter of turning vegetable blues into green. After being exposed to the air for a determinate time, it imbibes carbonic acid gas from the atmosphere, and becomes mild like pound-limestone.

Lime is a homogenous body, and will exercise a chemical action on all substances in contact; for all bodies of simple constituents have an aptitude to enter into combinations, and to effect decomposition, and the results will depend on the strength of the respective actions. The clammy and indurated clays, which are the most abundant, must be laid in an oblong heap of about six feet deep in the centre, and sloping at the ends, which will permit the carts to pass and lay the loads of lime upon the surface. The lime must be in the hottest possible state, and the clay may be in any form, dug from the beds of deep deposit, or from the surface ground of soil in mixture, and consequently with a portion of animal and vegetable matters. The heap of clay must be turned over, and mixed regularly with the cinders of lime, in the proportion of two to three, and the sides of the heap sloping all around, in order to allow room for the swelling of the mass. When moisture touches lime in a newly calcined state, a hissing noise takes place, a swelling follows, vapour arises, much heat is evolved, and light is emitted in dark situations. In most cases the water that is contained in the clay will dissolve the lime, if sufficient care be used in mixing the heap that the lime does not lie in dry masses, but is touched by the clay in every cinder of its form. The heat that is evolved penetrates the harsh mass of the clay, and the acid and the water are expelled by its action, and are dissipated along with the water of the lime, which escapes in the form of a vapour. The aluminous base of clay, being thus freed of the acid and the water which rendered it harsh and rigid, immediately assumes a mild gelatinous form; and being united with the lime, which is now mild by the absorption of carbonic acid gas, the combination becomes a saponaceous mass of an unctuous nature, which is loosely connected, and easy of decomposition. The harsh properties of both the constituent bodies have been expelled by mutual action, and milder qualities have succeeded.

After the dissolution of the lime-cinders has been completely effected, and no more heaving of the mass takes place from the swelling of the lime in bulk, a time may be allowed to remain in quietness, for the purpose of settling the combination after the union has been effected by the violent intestinal motions that have been provoked by the action of the bodies singly and on each other. After remaining in a quiescent state for an indefinite time, the heap must be again turned over, and the materials very intimately mixed by breaking the lumps, and placing in the centre of the mass the substances that have been exposed on the outside, and consequently will be less decomposed. This movement of the heap will provoke new affinities, produce fresh combinations, and effect additional results. It must be done with much care in reducing the materials to fine particles in order to bring the bodies into contact in the nearest possible ultimate form, and at insensible distances. Unless these conditions be effected, no useful combinations will happen.

It will depend on the state of reduction which the mass of materials exhibits, if it be necessary to turn over the heap for the third time: if it be finely pulverized the necessity will not exist, after the heap is seen to assume the form of a saponaceous unctuousness; for the beginning of this condition shows that the affinities are exhausted, and that the results of their action are settling into the newly produced state of existence. But if the materials still appear to be crude and harsh, and if the lime still exists in the dry granulated form as it falls from the dissolved cinder, the heap may again be turned over with advantage. The lime is still hot, and will emit caloric, which will enter into and separate the bodies, sunder the particles, diminish the attraction for each other, and proportionally augment the attraction of the particles of adjacent bodies, and consequently produce combinations and facilitate reciprocal unions. This principle shows the necessity and advantage of the frequent stirring of mixed bodies.

### A Prolific Fowl.

Mr. W. A. Nelson, of 179 Second street, Detroit, has a pullet of the Braham breed that commenced laying on the 15th of December last and up the 9th of March had laid seventy eggs. On the 25th March, she commenced laying again, and has produced an egg every day since. Who can beat this?

### A French Potato.

A new potato, named the *Blanchard*, has been lately introduced into the Paris market, which has been found far superior both in earliness, quality and productiveness to the best kinds grown for that market.



## The Garden & Orchard.

### When Should an Orchard be Pruned.

BY T. T. LYON, PLYMOUTH, MICH.

At this season almost every owner of a plantation of fruit trees will be pretty sure to be asking himself the above question; and the practice of even intelligent cultivators is so various, that the considerate querist is generally thrown back upon his own resources for the decision of the question.

As trees, to some extent, "store up," in autumn, a supply of nutriment for the early spring growth, the theoretical inference would be that the best season for pruning is sometime between November and the opening of buds in spring; and indeed, the months of February and March are generally chosen for this purpose; partially, perhaps, because this is a season of comparative leisure. In practice, however, this season is found to be objectionable, for the reason that, where incisions are made before or during severe weather, the wood is liable to die back, leaving a large wound, which is slow in healing; and, if delayed till mild weather, the wood does not harden sufficiently to prevent the emission of sap; which, consequently, keeps the wound moist, and produces decay of the wood, before the air is excluded by the process of healing. This bleeding is also believed to be very enfeebling to the tree, by robbing it of the requisite nutriment.

From the time of the first rising of the sap till growth is fairly commenced, is, probably the worst possible time for the performance of this operation; since the tree, during this season, has the greatest possible tendency to bleed, while the new foliage has not yet had time to elaborate the cambium by means of which the healing process is carried on. The consequence is, that trees, heavily pruned at this season, are, not unfrequently, so enfeebled as to be unable to recover from the shock; while others, less seriously affected, often show a large patch of dead and decayed wood below each wound, which is a long time in healing, leaving the tree permanently diseased, and liable to be broken off at such points by high winds.

To obviate these difficulties orchardists sometimes delay their pruning till the new shoots have made an inch or two of growth, which is usually about the beginning of June. At this season, of course, a large portion of the newly formed cambium will be lost in the branches cut off, and the operator may dread the result of baring the trunk and branches to the now nearly vertical rays of the summer sun; but it is found, on the other hand, that the wounds, inflicted at this season, dry promptly, with none of the blackened appearance of those of an earlier period; and the abundance of the cambium, at this season, causes the healing process to commence more promptly, and to proceed more rapidly than at any previous period.

Pruning, at this period, is, doubtless, in some degree, open to the objection that it is an enfeebling process; which is also true of all pruning during the growing season; and, in an increasing ratio, as the season advances; and it is for this reason that we resort to summer pruning, as a means of hastening fructification.

When the pruning of an orchard has been conducted from year to year, with an intelligent reference to the ultimate wants of the trees, it will rarely be necessary to eliminate branches larger than can be removed with the knife.—With such trees, the incisions will be so small that the objections to early pruning, to a great extent, if not entirely, disappear; while the comparative leisure of that season, and occasionally, the saving of scions, would lead to its selection for that purpose; but the experience and observation of the writer have led him to the conclusion that, where large limbs are to be amputated, the process should always be deferred till the growing season.

In pruning the cherry, this is especially important, as early pruning is very liable to occasion the emission of gum from the wound which is not unfrequently followed by disease and ultimate death.

### New Rochelle Blackberry.

FRIEND JOHNSTONE.—A subscriber to your paper in Wayne Co. asks me to tell him and others how to cultivate this noted fruit. It would be much like telling him how to grow a hill of Indian corn. Produce good strong plants to start with; cut off smoothly all bruised roots and cut the plant down to a couple of good leaf-buds. Plant in good garden soil five feet apart each way, rather shallow, and cover the ground about the plants with rotten chip and stable manure in equal proportions. Set a heavy stake to

each plant, so that when winter comes the stake may be taken up and laid across the plant and be heavy enough to press it down near to the earth, and thus protect it from the winds.

All the culture they need is a clean bed, and an occasional tying up of the leading canes. In March all the side branches should be cut back, leaving them about ten inches long, and the main stalk should be cut back about one third of the last year's growth. Then set the stakes and tie up again. No suckers should be allowed to grow the first year, and those plants which bear fruit should never be allowed to produce suckers. The enormous yield of this variety fully repays all necessary care.

CHAS. BETTS.

### Fruit Culture in Kent County.

We make a few extracts from the report of the proceedings of the meeting of farmers for discussion of fruit culture at Grand Rapids, as the experience in that locality is such as must be of value to other portions of the Grand River Valley. The report we find in the *Grand River Eagle*:

Henry Stone, of Grand Rapids, remarked that he had changed his mind in regard to pears. It used to be thought that pear trees would not bear until they were 14 years old. He planted pear seeds eleven years ago; trees from them began to bear when eight years old and had continued to bear ever since.—He budded some of them at the ground at two years old, from the Disbow, (a new variety introduced here, and so named by Dea. Page,) and they bore at six years after budding. It is not safe to transplant seedlings, as they have but few and very small roots, except the tap root, which runs very deep to get water, which being cut off in taking up, makes the tree liable to die; hence he has resorted to root grafting, using the pear root. Has had good success in growing pears where he now resides. Soil, sand with clay about 20 inches below the surface. Pears need the same soil as the hickory. The tree of the Disbow is healthy and thrifty; a good bearer and fruit large and of a good flavor.

Mr. Henry Allen, of Paris, had got from Rochester three year old standards, which bore the second year after planting. He plants the land on which his pear trees stand to corn or potatoes, and forks on well rotted horse manure, which he esteems preferable, moving the tines of the fork toward the tree. He does not mulch.

Mr. Stedman, of Walker, had had good success in grafting the pear on apple stock, but grafts so low that the pear strikes its own roots. Mr. Stone stated that the apple dwarfs the pear when thus grafted, but not so much as the quince.

Mr. Blakely had found that pears did not succeed well with him, from the fact that the bark of the tree on the southwest side shrinks and dries up and causes the tree to decay.—[This might eventually be remedied by wrapping a thin coating of straw round the stem, as it is caused by the exposure of the trees first to the heat of the sun in the warm days of winter, and then to an exposure to the severe frosts of night. It is well known that the heat of the sun, even in some of the most severe days of winter, will raise the thermometer to 70 or 75; when at night the temperature will be several degrees below zero. A very slight shading as protection from the sun is what is needed in such a case as this.]

Mr. Gilbert in setting his trees, dug every hole from three to four feet deep and four feet in diameter, filled with compost of sods, three parts compost to one of horse manure and three barrels of air-slacked lime to the cord of compost; prepare a crown on which to set the tree, placing the roots as nearly in their natural positions as possible, and fill in the natural soil with the hands about the roots with care. Prunes in June. Thinks the wound is not apt to heal so well if the pruning is done late in the season, nor if done in the spring. Had his apple orchard (which was, perhaps, one of the best in the county) severely pruned late in the fall before the hard winter of 1855-6, and the sap flowed from the wounds all the next season. His orchard was greatly injured by it. His soil is heavy clay loam.

Mr. Gilbert also had found the Concord Grape more hardy and better than the Isabella for that section.

Mr. Stone exhibited some wine made from a seedling grape that had been raised in that vicinity by a lady. The grape was considered valuable for wine, but not for the table, and was named by the Society the *Kent*.

The Triomphe de Gand Strawberry had been found by Mr. Nelson to be large and prolific, the vine vigorous and hardy, and the flavor of the fruit good. He had cultivated about an eighth of an acre, and the expense

of culture and picking had only been \$5.00, whilst he had sold off \$55.00 worth of fruit. The Boston pine and the Burr's New pine, planted out in the proportion of one-fourth of the former kind, had been found very remunerative by Mr. Stedman. He having sold \$70 worth from an eighth of an acre.—His practice was to manure the bed with leaf mould. The Lawton Blackberry had been tried by Mr. Nelson, who esteems it highly, the fruit being two or three times the size of the common blackberry. He finds that it wants rich soil, clean culture, and to be cut back in the spring. The heading back of both the raspberry and the blackberry, improves the quantity and quality of the fruit.

### Gas Tar on Trees.

EDITOR MICHIGAN FARMER, Dear Sir,—I observe, in the recent issue of your paper, under the above caption, an extract from the correspondence of the *Scientific American*, in which we are assured that gas tar may be applied to the trunks of trees, without injury, by first coating them with tallow.

Without professing to have tried the experiment, I wish to administer a caution against the too ready adoption of such a recommendation. It is a well settled principle in arboriculture, that any application which closes the pores of the bark of a tree, is injurious, just in proportion to its extent of surface, and the length of time it is continued.

It is claimed that the enveloping of the human body in a close-fitting, air tight enclosure, for a very brief period, would be fatal to life, on account of the checking of perspiration and the retention of deleterious gases. For the same, or a similar reason, it is believed that a single application of common tar, resin, or any oleaginous substance to the entire trunk and branches of a tree, would produce certain death. It will, therefore, require but little force of imagination to reach the conclusion that, if only a partial application be made, the result must be a partial but similar effect.

A few years since, our Horticultural Journals published a mode of getting rid of the bark louse or scale insect infesting the bark of the apple tree, by painting the entire surface of the trunk and branches with a mixture of common tar and linseed oil; and the fears of a fatal result to the tree were only quieted by the assurance that the drying of the mixture would cause it to crack and peel off.

There is, therefore, in the writer's estimation, only this difference between the interposition of a coat of tallow and the direct application of coal tar; that, while the one will smother the tree, the other will corrode the bark, and thus starve it by cutting off the supply of nourishment.

In conclusion, I may be allowed to urge, the impropriety, not to say the great wrong, of allowing the crude suggestions of inexperienced persons, on doubtful subjects, to appear in our public journals, without an expression of doubt or dissent from the editor. To give point to this remark, the writer will only refer to the immense injury done by the premature recommendation of this very article, (coal tar), a few months since, in our leading journals, as a protection against the depredations of mice and rabbits. Even in our own vicinity it has, during the past winter, occasioned the probable loss of one of the most extensive and promising young orchards in the entire state.

T. T. LYON.

Plymouth, March 20th, 1860.

### HORTICULTURAL NOTES.

#### The Peach Worm.

A composition of rosin and grease, made thick enough to spread well with a brush, is recommended to be put on the stems of peach trees from the root about a foot up, as a preventive of the peach worm. The composition must be laid on thick enough to prevent the insect from depositing its eggs in the soft bark near the juncture of the stem to the root.

#### Large Peach Orchard in Washtenaw.

Judge Lawrence and John C. Bird, of the town of Ann Arbor, are making preparation to set out a large peach orchard this spring, on the farm of Mr. Bird, situated about three-fourths of a mile west of the city, on the north Dexter road. The land to be occupied is the highest point of land in this vicinity, and contains eight acres. It is a clay soil. Mr. Bird has raised peaches on his farm for the last fifteen years in succession, with the exception of one year.

The land is to be subsoiled, and the trees are to be pretty thickly set. Fourteen hundred trees are allotted to the eight acres. Mr. Bird is to prepare the ground, and the Judge is to furnish the trees and keep them properly trimmed and cared for, and the partners are to share equally in the profits.—*Ann Arbor News*.

#### A White Blackberry.

A correspondent of the *Prairie Farmer* brings forward to notice a new variety of the blackberry, which he has named the *Albion*, and which has been originated by a Mr. J. B. Orange, of Albion, in Southern Illinois. He gives the following history and description of it:

HISTORY.—The *Albion* is a native, light colored fruit, found in the south-eastern portion of the

State. "White Blackberries" are not new—though less frequently met with than the black. They are found in many parts of the country.—They may be considered *Albinos*, having no distinctive specific characters—but they are permanent in their color; they are genuine varieties.—Among them, as among the more common black ones, there are great differences in quality and size, productiveness, &c.

DESCRIPTION.—Like all the *Albion* blackberries, the *Albion* has a green stem, and its foliage has a peculiar tint of bright green. It is vigorous and productive, and such berries! They almost equal the wonderful stories we often hear of "blackberries as long as a man's thumb!" Their color may be admired or not, that's a matter of taste—but when it comes to the question of *taste proper*, "de gustibus" what can the blackberry connoisseur desire more delicious and satisfying, than the honied dew of the mucilaginous syrup which is contained within the those beautifully transparent sacs of roseate tint, that are crowded together to make these splendid berries! I have already said that the fruit is large; it is as large as those of the New Rochelle, or of any other variety in cultivation.

#### A New Favorite for the Flower Garden.

The *Revue Horticole* states that the *Saponaria Calabrica* is becoming quite a favorite with the Parisian gardeners. This plant forms a spreading patch of a foot in diameter, and is covered from May to September with charming rose colored flowers. One of its merits is that it hides its seed vessels under the new flowers and evergreening stems; in consequence of which habit it always looks fresh. It bears any amount of drought, and is much used for good durable edging. It is easily cultivated, and if sown in April or May where it is to stand, it will bloom in July. Some sow it in September, and prick out the seedlings under the frames, when it comes into bloom a month earlier.

#### Production of Large Fruit.

It is stated that the weight of a fruit that hangs on its stems, prevents it from becoming as large as it would if the sap vessels of the stem were not straightened; and a writer in an exchange proposes that fruit, where it is desirable it should attain its greatest possible size, should be supported while ripening, and thus relieve the stem of the weight that is imposed upon it by the growth of the fruit. As a trial will not cost any thing but a little time and ingenuity to fix a support with a tape or strip of cloth, it might be well to test this method of increasing the size of fruit.—The flowers of the Dahlia and of the Peony are said to be rendered larger and fuller by the same method.

#### Early Peas.

The several varieties of pea grown for an early crop are the Early June, the Early Kent, the Prince Albert and the Tom Thumb. But we note that the variety called the Landreth's Extra Early, is recommended after being tried along side of these, and the Daniel O'Rourke, as decidedly the best, by Carew Sanders, in the *Valley Farmer*.—Those who have good warm light soil, moderately rich, should now have the seed for their first crops in the ground.

#### Prizes for Essays.

The Belgian Horticultural Confederation offer prizes ranging from twenty to one hundred dollars for treatises on the phenomena of hybridizing and the best methods, and the results obtained from them; also for a treatise on garden entomology, which will show the relation of common insects to cultivated plants, whether useful or injurious.

#### A New Cucumber.

Pike's Deliance is the name of a new variety of the cucumber, which, though originating in England, has become one of the choicest varieties of this vegetable offered in the Parisian market.—It is long, very fleshy, with the seeds close to the centre, and occupying very little space.

### Culture of the Apple in the West of England.

BY ROBERT THOMPSON.

The Apple tree thrives best in a soil that is neither too dry nor too moist. In hot sandy soils it is apt to canker; wet subsoils occasion disease, and are frequently indicated by trees becoming overgrown with moss. The ground for an apple plantation should therefore be well drained; so that if holes are dug out to the depth of at least three feet, water will not spring up in them. All land springs should be cut off; spring water being much colder than the summer rains. Moistened by the latter, the trees grow vigorously; but spring water chills the roots with which it is allowed to remain in contact, and the warm sap that return from the leaves to increase the roots, being checked by the cold when it approaches them, the formation of good roots is prevented; and without these the trees cannot thrive.

After the ground is well drained, it should be trenched to the depth of between two and three feet, if the soil is so far good. When the soil is well loosened to a considerable depth, the trees obtain a better supply of moisture in dry seasons than they do in shallow soils. The bottom of the trenches should either be made level from end to end, or form a regular slope towards a drain; and the surface should have the same inclination as the bottom. Plenty of manure should be supplied as the trenching proceeds; and it had best be placed between one and two feet below the surface. If a compost of turfy loam and dung can be prepared for planting the tree amongst, it will ensure a growth in the first season.

Autumn is the best season for planting. If moved before the leaves have fallen, the shoots

are apt to shrivel to some extent; but as soon as the greater portion of them have dropped, the operation should be no longer delayed, provided the soil is in working condition.

The hole in which the tree is to be placed should be dug out so large that the roots when extended cannot reach the sides.—Square holes are preferable to round. They should be as wide at bottom as at top, unless the soil is very loose; and the bottom should be somewhat higher in the middle than at the sides. This being the case, the tree when being planted, will be on a single mound, on the surface of which the roots should be regularly extended; none should be allowed to cross; for if they do they will squeeze each other when they grow large. When trees are carelessly planted, with perhaps most of the roots to one side, they are apt to be upset by heavy gales. Some tolerably fine rich compost should be spread over the fibres and carefully introduced among them, shaking the tree a little; but it should not be pulled up to some extent and then pressed down, for by so doing the fibres are doubled. When the roots are well covered, a good watering may be given; and next day the holes may be filled in level.

Grafting.—Grafts should be taken off before the sap is in active motion, in spring; in general any time in January and before the middle of February. They should be kept in the shade, with their lower ends in the soil, or in moist sand, till the grafting season in March. Stocks that are to be worked, or old trees that are to be regrafted, should be cut back not later than January. Indeed large limbs are best cut back in December, but not when they are in a frozen state; and then in February, before the scion is put on, a portion may be cut off about half an inch lower.

The operation of grafting is easily performed. The mode of whip-grafting is the best. It is so called from the stock and scion being joined together like the splicing of the handle of a whip. There is however this difference to be observed—in the whip, the outside of two pieces are made to fit; but in grafting, the inner barks of the scion and stock should be placed against each other; and if this is done as nicely as possible, the graft will be sure to take well, all other circumstances being favorable. Now, unless the barks of the scion and stock are of equal thickness, which is rarely the case, the outer barks of scion and stock will never correspond, if the inner barks do so; this, it must be repeated, they always should do, in order that the most perfect union may take place.

It is necessary to explain, that in grafting it is not the two surfaces of scion and stock that unite; it is by a soft substance which produces from between the wood and the inner bark of scion and stock, that a vital union is formed. It is this substance issuing from stock and scion which grows together; for the woods of the respective parts already formed, never do so.

In performing the operation, cut the scion in a slanting direction, and so as to be quite thin at the lower end. The stand may be about two inches and a half long. Then cut a slice off the stock, so that the inner barks of stock and scion may fit each other when placed together. Next make a cut a little downwards in the stock, and a similar one upwards in the scion, so as to form a tongue to fit into the cut made in the stock. These cuts should be made near the upper part of the slope of the scion, and almost close to the top of the sliced-off part of the stock. When properly fitted the stock and scion should be tied with matting, and surrounded with grafting clay. When the graft has pushed a shoot, the matting should be loosened; otherwise it will cut into the graft as the latter increases in thickness. When loosened, the graft should be retied, but not very tightly.

If the stocks are strong, the graft will make a vigorous shoot in the course of the summer, and may be planted in autumn; or it may be allowed to grow for another season. But whether removed or not, the plants should be reared with good stems—such as will support their own weight without bending, although more than six feet long. Instead of this, young standard trees are frequently seen as slender and flexible as fishing rods; this is owing to the stems being stripped of foliage as they are being reared. It should be recollected that the substances of all the solid parts of a tree come through the leaves; the substance of all the timbers of a man-of-war passed at one time or other through green leaves. If we wish to have a stout stem in a short time, we can only obtain it by encouraging plenty of healthy leaves. These should be allowed to grow all along the upright shoot from the graft, in the first season. They will of course, drop in autumn, but each will leave a bud, and next spring many of these buds will push out shoots, if they are not rubbed off as is the bad practice of some persons. Instead of so doing, the side shoots which push from the stem should be allowed to grow



till the end of July, and then their ends may be pinched off. These shoots will bear foliage that will contribute to the thickening of the stem; and this, rendering it self-supporting, is a very important object. But this is not all that results from allowing young shoots and leaves to grow along the stem; for, if there are many leaves, there will be many roots, and with plenty of the latter, the tree soon attains a large size. Having obtained a stout stem, it must, for a standard tree, be ultimately rendered clear of branches to the height of at least six feet; therefore all side growths must be done away with, as soon as they can be spared from doing their duty in assisting to strengthen the stem and roots.—Therefore, when the tree makes shoots to bear a considerable amount of foliage above the height of six feet, the lower branches on the stem should be first cut off; and those left should be reduced by shortening. In the following autumn, the stem should be cleared a little higher, or even to the required height, if it has by that time made plenty of top.

**Treatment of Apple trees that have become unproductive.**—In order to ascertain the cause of unproductiveness, the condition of the soil and subsoil as regards moisture, should be first examined. If too much moisture is suspected, test holes should be dug as deep as the roots descend. If water remain stagnant in these holes, it is a sure indication that drainage is required; and the beneficial effect of deep drainage on ill-thriving orchards, has in a few years proved astonishing.

On the other hand, if the subsoil be found to be too dry, means should be adopted to render it completely moist. This should be done in March, and repeated during the summer, if found necessary. In order to ensure the water reaching the subsoil, several trenches about a foot wide should be dug out round the trees, and as deep as can be done without injuring the upper roots. Such trenches, forming circles round the tree, may be three feet apart. They should be filled with water, and kept refilled till the subsoil is thoroughly moistened. If manure-water can be afforded, so much the better.

If the subsoil is of bad quality, and the tree too old for removal, the roots may be uncovered, and a layer of compost of dung and loam placed over them. In this, young roots will form abundantly, to feed the tree with good nourishment.

If unproductiveness arises from the poverty of the soil, a plentiful application of manure is of course necessary. Farm-yard manure, with a mixture of fresh loamy soil, is better than manure alone.

When trees become unproductive in consequence of old age, and long bearing of heavy crops, the roots should be shortened, and fresh, rich soil introduced for young fibres to strike into; then the tops should be considerably reduced by thinning and shortening.—The shortened branches will very likely push some vigorous shoots. Let these shoots be cut back, at the winter pruning, to one-fourth their length. From the portions left, more vigorous shoots will proceed, which may be shortened at the next winter pruning, to half their length, and at the same time some more of the old worn-out part of the top should be removed; and thus the tree will be renovated, so as to be again in condition to bear good crops.

#### How to Raise Seeds, and When They Germinate.

Charles Appellius, a seedman at Erfurt has lately published in the *Journal de la Société Impériale d'Horticulture* a memoir on seeds, and how to raise them, from which we take the following synopsis:

The German author tells us that the first and most essential condition required to ensure the success of all seedlings is to use seeds capable of germinating. Now the goodness of a sample can only be proved by the number of seeds which, out of a given quantity, grow and become plants. Yet too often its value is determined by the specific weight or the density of the seeds. This method is no doubt good, but not infallible; besides the weight of the same kind of seed may vary from year to year, according to the manner in which it is grown; it may even vary upon the same plant; it does so particularly in an ear of Maize, the grains situated in the centre of the ear of that plant having a greater specific gravity than those above or below. Now the latest experiments of Dr. Hellriegel go to prove, first that, in accordance with the general opinion of cultivators the best formed seeds have the greatest specific gravity; and, in the second place, that the heaviest seeds produce the strongest plants.

Every one knows that in order to ascertain the specific gravity of seeds quickly and

easily, it is the custom to throw them into water, and to collect as the best those which from their greater weight fall to the bottom, whilst those which float are rejected as bad. However, too much confidence must not be placed in this method of proving seed by water. It may frequently mislead, particularly in the case of seeds, in which the specific gravity differs little from that of the fluid.—For example, those of Cucurbitaceous plants which are produced during cold seasons float upon the water, and nevertheless germinate very well. It is known too, says M. Appellius, that the seeds of these plants which have been kept a few years produce plants bearing more female flowers than younger plants; this is to say, the plants are more prolific than those raised from seeds gathered in a cold season and planted shortly after they have ripened. Good seeds of the melon and gourd lose weights as they grow old; at first they will sink in water, and by the 6th year half of them will float, without having become bad. We conclude therefore, in this case as in many others, that trial by water is not a sure test.

In general the heaviest seeds are those which contain the most starch, such as those of Cereals and Leguminous plants, &c. The specific gravity of oily seed is often nearly the same as that of water, although in some cases they are heavier; as for example, those of cabbages. The lightest seeds are those of Umbelliferous plants, such as carrots, parsnips, chervil, Anise-seed, &c., and of Composites, such as lettuces, scorzoneras, &c. In the first of these families the lightness of the seeds arise from the presence of an oil in the case which encloses the seed, and of air in the last. With a few exceptions all shining seeds are heavier than water.

Many cultivators, before buying seeds, test them by making them germinate upon damp blotting paper, at a temperature of 59° to 72°. This process is convenient and tolerably sure for the kinds which are quickly raised—such as clover, peas and cereals, but does not answer for those which require a long time to germinate. For these the best practical plan is to grow a sample in a pot. But even this test will not always give a strictly correct indication of the germinating power of seeds, since the result depends, all other circumstances being equal, upon the care taken in sowing, the temperature of the air, the depth at which seed is sown, and the time of year, &c. Thus the pips of apples and pears almost always germinate badly and in very small quantities when trials are made of them in pots soon after they are ripe, whilst they answer perfectly if they are sown at the end of October or in March in beds in the open air. For this reason it often happens that a sample is pronounced bad, when in reality it is excellent.

This is the case with the generality of woody plants, the seed of which come up the first year, Conifers excepted.

The soil which is used to cover the trial seedlings also considerably affects the result. If, for example, rye-grass seed (*Lolium perenne*) is sown in soil which retains moisture with average tenacity, and is buried 1 inch below the surface, seven-eighths of it grow in 12 days; if 2 inches seven eighths also grow, but in 18 days; if 3 inches, six-eighths in 20 days; if 4 inches, four eighths germinate in 21 days; at 5 inches, three-eighths in 22 days; and at 6 inches, the proportion of the seeds which germinate is reduced to one eighth in 23 days. On the other hand, when rye-grass is sown and simply harrowed in, it germinates, almost without exception, in five days.

M. Appellius' pamphlet contains, in the form of a table, the length of time necessary to germinate the seeds of many plants at a temperature of 55 deg. to 54 deg. in the sun, and of 54 deg. to 64 deg. in the open air.

We copy this useful information, though not in a tabular form:—

Germinates in 2 days; garden cress.  
Germinate in 3 days; spinach, orache.  
Germinate in 4 days; cabbages, field turnip, rape-seed, lettuce, buckwheat.  
Germinate in 5 days; cameline, peas, endive, millet, flax, poppy, melon and gourds, turnip, rape, rye-grass, mustard.  
Germinate in 6 days; lupine, lentil, spurrey, horseradish, radish, onions (often also in 15 days), leeks.  
Germinate in 7 days; rye, barley, oats, maize, sorgho, cat's-tail grass, phalaris arundinacea, broccoli, anethum graveolens, carthamus, beans, beet, milfoil, rocket.  
Germinate in 8 days; wheat, festuca pratensis, festuca rubra, cummin, marjoram, thyme, princess kidney beans, cattle cabbage, chicory.  
Germinate in 9 days; marrow-fat peas.  
Germinate in 10 days; cynosurus cristatus, agrostis, serradilla, vetch, sabre and some other kidney beans, sugar beet, giant hemp, tobacco, chervil.  
Germinate in 12 days; tall oat grass (*avena elatior*), meadow brome grass, carrots (fre-

quently in 20 days), tomatoes, seakale, scorzonera common celery and turnip-rooted celery (the latter frequently in 20 days), savoy (*satureia hortensis*), basil, stocks.  
Germinate in 13 days; anise, funnel, meadow-grass (poa).  
Germinate in 14 days; burnet, sun-flower (*helianthus annuus*), artichoke.  
Germinate in 15 days; clover (red and white), balm (*melissa officinalis*).  
Germinate in 16 days; foxtail grass, holcus lanatus, lavender, purslane, sorrel.  
Germinates in 17 days; aira caespitosa (?).  
Germinate in 18 days; festuca duriuscula, teasel.  
Germinate in 19 days; aira flexuosa.  
Germinate in 20 days; avena flavescens, molinia coerulea, bromus mollis, madira onions, mulberry, common sage, capsicum.  
Germinate in 21 days; sweet vernal grass, parsnip, cow-parsnip, parsley, woad, asparagus.  
Germinate in 27 days; potatoes.

This table shows plainly, says the German author, that those seeds which are lighter than water require a longer time to germinate than those which are heavier.

A tolerably large number of seeds come up slowly and even with difficulty; they are generally those which have a thick, tough skin. In this case it is a good plan to soak the sample in hot water from 167 deg. to 185 deg. for four and twenty hours, and not to sow it until after it has been prepared in this manner. Their germination may be assisted by notching, a more delicate operation than the first, because care must be taken not to injure the embryo. Unless one or the other of these methods is adopted, it will generally be one or two years before such seeds come up. The seeds of palm trees usually grow very well, placed on damp sawdust, the germinating end downwards, and kept in a damp warm atmosphere.

The spores of ferns and the seeds of orchids, which are very minute, come up rapidly, if they are scattered on pieces of peat placed in a pan with water.

For hardy plants M. Appellius recommends as by far the best plan to sow them in lines. In his opinion, the reason of the frequent failure of seeds in gardens is, that they are sown in earth too dry, and buried too deep. Besides, if care is not taken to press the earth lightly together before sowing the seed, heavy rain falling directly after will force some of the seed deeper in, and so occasion greater inequality in germination.

For perfectly hardy annuals, the best plan is to sow them late in the autumn, or at least very early in the spring; if the seeds are not in the ground before April you run the risk of seeing them flower very late and very badly.

Seedlings which are obliged to be raised in hot beds or under frames cause much disappointment, and consequently complaint of the quality of the samples. M. Appellius does not hesitate to say, in that case, the want of success arises more often from bad management than from the badness of the seeds. In his opinion it is a mistake to sow many kinds of flowers in high bottom-heat, such as stocks, asters, phlox, heartseases, petunias, &c., which do far better in a very gentle hot-bed, and produce stronger plants less likely to die off. On the other hand it must not be forgotten that the dung with which a hot-bed is made, after it has given off its first heat, absorbs the moisture from the earth with which it is covered; that the surface of this earth under the frame generally slopes towards the south, and the greater part of the shower from the watering runs down this incline, the end of which is that the earth in which the seeds are embedded is often too dry, or at least it is so with that next to the back of the hot-bed. In this case, says M. Appellius, if you sow those seeds which germinate slowly and require constant damp such as phlox and heartsease, at the bottom or in the front of the bed, and those which grow more readily at the top or back, the result will be good; but it will be quite the contrary, if the reverse is done. Finally, the success of seedlings raised under frames depends principally upon the regulation of moisture. Another precaution and one of the utmost importance in this case, is not to sow thick; a plant raised among a lot of crowded seedlings is very apt to die before it has made its fourth leaf. This seldom happens, if on the contrary seeds are sown thin, and a little powdered charcoal mixed with the earth.

**Wheat at the South.**  
There are many unfavorable accounts of the wheat crop in the Southern States. The *Valley Farmer* states that all the late sown wheat in Alabama, East Tennessee, and Southern Kentucky, has suffered severely from the frosts of last December. The early sown wheat is looking well, however, and gives promise of a good crop.

#### Hens.

The "hen fever" has had its run, and a credulous public has been badly gulled by sharpers. Yet there is no good reason why we should not keep such fowls, as, on the whole, prove most profitable. The public is welcome to the experience of one, who for many years has kept his own fowls, without even paying a dime extra, either for hens, or roosters, or eggs to set. The following is the result.

1. More depends upon the way of treating fowls than upon the kind. A prominent reason why new varieties excel the older kinds is, because of the care and pains taken with them. If you will have plenty of eggs in cold weather, you must have a warm roost, and feed your hens daily with meal or middlings, or something similar stirred up with hot water, and on occasion a bit of lard stirred into it. They must also have fresh meat of some sort—offal of pork, beef, veal or lamb, or an occasional bit of coarse meat, so chopped or mashed that they can eat it; also plenty of water. Set your food in an old pan, and let them help themselves. They must also have access to plaster or old lime mortar, or bones well burned, slacked when hot, with cold water, and beaten with a shovel into small pieces and put in a box; that is they must have lime and fresh meat when they cannot get lime, gravel, worms and insects to eat. They must also have as much food daily as they will eat, both summer and winter. In warm weather a crock supplied with sour milk is a luxury to them, for which they will repay you abundantly in eggs.

I have not found it profitable to keep over winter more than one rooster and a dozen or fifteen hens.

Again, hens do not lay well after the second year. If you wish to keep some older and favorite hens for setting and raising chickens, do so, but not for eggs.

Hens do better also by occasionally changing them. My sister a few years ago offered me half a dozen hens that gave her no eggs, and a rooster. I carried them fifteen miles in May, and they did finely through that season.

Now, some farmer will say that he cannot afford to take all these pains for a few eggs. But how much is required? Pick up as you find them a half bushel of bones, burn them when you clear your yard, and twenty minutes work will furnish your fowls for a year. So in regard to fresh meat. Give the offal of your beef and pork to your hens, instead of the dogs. It is no more work in the winter to feed a dozen hens than a pig or a horse. Now see the difference. My neighbor Smith, a farmer, complained to me that with thirty hens around his farm they had not eggs for family use. We, with a dozen hens, were using all that a family of four would eat, and selling several dozen from 14 to 18 cents.

So in regard to feeding hens. It is cruel to compel them to scratch for a living or starve, and then if they trouble your garden, or, wholly innocent of a knowledge of boundary lines, get into your neighbors, to club, stone, or shoot them. There is no need of it. A few years ago I sowed three-fourths of an acre of wheat, which extended to my barn yard fence on two sides. My hens had free access to it from the day it was sowed till it was harvested. Yet the product was 19 bushels good wheat, and I doubt whether it would have produced 20 had no hen been near it. But they had all the corn they would eat, then as at other times.

2. In regard to different kinds of fowls. My experience shows that the large kinds are uniformly quiet, peaceable and not inclined to ramble. I doubt whether they eat more in proportion to their size than smaller ones. They usually lay a litter in one nest, even if the eggs are removed every evening, and never "steal their nests." For family use their eggs are as profitable as any. But in selling they bring no more by the dozen than smaller ones.

The "Bolton Greys" a few years ago were all the rage. My neighbor rode 28 miles out and home to get a dozen at a high price. They were said to be "everlasting layers." They are small, light, quick motioned, and rather shy. They are good layers, and until two years old are not inclined to set. Their eggs are small. They are more likely to sicken and die than other kinds. Now, they are neglected by all who know them. I want no more of them. The upshot of the matter is this: much more depends upon care and keeping than upon the particular kind of fowl. Give them enough to eat and drink, and a comfortable roost. See that they have the material which is necessary to the production of eggs. Tie the hens up for a few days when they begin to set, unless you wish them to hatch chickens. Change them occasionally. Do not keep too many in a flock, and bestow as much attention on them as you do on a pig, and it makes but little difference what kind you keep. S. Y. E.

#### NEW ADVERTISEMENTS.

BURNHAM & Co., Battle Creek. Subsoil & Jointer Plows, CHAS. RUTTS, Burr Oak, Mich. Lawton Blackbury.

#### MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, MARCH 31, 1860.

#### Editorial Miscellany.

It will be seen that the Messrs. Burnham & Co., of Battle Creek are ready to supply subsoil and jointer plows.

It will be seen by the letter which we publish in another column, that an addition has been made to the stock horses of St. Joseph county, and which will probably be the means of giving an increased interest to the breeding of that section of the State.

The Executive committee of the Ionia County Agricultural Society, held a meeting on Tuesday of last week, and adjourned to meet again on the 4th of April. The society are negotiating for ten acres of land on which to establish permanent grounds, and by the next meeting it is expected that the arrangements will be fully made.

The communication which we print on the cost of feeding cattle, and on the application of steam to cook food, from F. E. Walbridge, Esq. of Kalamazoo, is worth the attention of farmers, and we hope others will take up the same subject, and shed some light on it. We have appended a few remarks to Mr. Walbridge's communication, which we hope he himself will, at his leisure, give us the benefit of his experience upon.

As the town meetings are held next Tuesday, we suggest to our friends and agents that it is a good time to present the claims of the FARMER to many of those who will attend. Let them bear in mind that the season is approaching when all will be anxious to be posted in relation to the wool markets promptly and certainly, and that by a subscription to the FARMER, frequently ten times its subscription price may be saved in a single transaction.

Our types, in an article published in the number for March 10th, from our correspondent S. H. Corbin of Armada, made an error that makes him appear as laying it on rather heavy. In noting that "he did not raise one weed where he formerly raised ten," he is made to say that he does not raise one weed where he used to raise a ton. There is some difference, as our readers will perceive, and we make the correction.

We continue this week the cheese making observations made by Gen. A. Williams, giving his rules, and the practice he has adopted in his cheese house. We hope to hear from other cheese makers relative to their practice, and methods of procedure; and we should much like to know how the produce of their cows will compare with the average we have given as that of this dairy.

We learn by a letter just received from the proprietor, Thomas Williams, that imported Stone Plover will make a spring season at Kalamazoo, commencing with the 15th of April, and ending with the 15th of July, when he will return to his old quarters at Plymouth, where he will make a full season. We commend this horse to the breeders of horses in Kalamazoo, and the neighboring counties. He is leaving his mark on the stock of this State wherever he has been used, in such a way that there is no mistaking it.—His stock will speak for him in the future, and that is the true test of the stock horse, as well as of the judgment of the breeder. The particulars as to terms, will be seen in the advertisement which will be given next week.

With the opening of spring, the railroads have commenced to do a very large business in the transportation of all kinds of produce. Immense droves of cattle arrive here by the Central Railroad and pass the river to the Great Western. In one day of the present week 2,227 head were sent across. The accommodations on this route for the transportation of cattle and freight are very perfect. The Detroit and Milwaukee Railroad is also doing a very large business in freight. Large quantities of wheat and flour have been carried across from Wisconsin and sent eastward. The workmen have been kept going night and day since the steamers began to run across from Grand Haven to Milwaukee. That the Southern Road is doing a large freight business is very evident from the returns of freight receipts which have been published. With the facilities for sending forward produce, of course the large stores in many of the western depots will be somewhat reduced by the opening of navigation.



## State Matters

Due preparations are making all over the State for the election of town officers at the meetings that take place on Monday next.—The registration law requires that the names of all voters should be entered in full on the list of the Board of Registration. Of course there is a good deal of speculation as to the political position which the townships will occupy after the returns are given in, as the results will be taken as an indication of the position of the State with regard to the Presidential election.

In general matters, it may be considered that both parties have drawn off from actual conflict for the present, and are waiting with eagerness for the choice of standard bearers at Charleston and Chicago. Much depending upon the result arrived at by the Great Conventions. The Republicans are holding their county meetings to send delegates to the State Convention to be held at Detroit, on the 2d day of May.

## The Foreign Breadstuffs Market.

We make the following extract from the *London Farmer's Magazine*, as it shows both the condition of the crops and of the markets in England, and on the continent. Our dealers will note that nearly all importations have so far this season resulted in a loss to the parties who have been speculating for an advance.

The fact of the low prices with such an activity in all the departments of trade and manufacturers of Great Britain, indicates pretty clearly that the surplus of the crops of the last three years have been underrated, and that the farmers of Great Britain in storing up so much grain with the expectation of getting high prices by future operations, missed a figure or two, and allowed foreign growers to get the benefits of the high prices in 1857 and 1858, whilst they have had to put up with low prices in 1860 for the grain grown in the former years.

"The past month has been very winter-like, after opening wet, so that but little field-work could be done. The unsown wheat lands have now but a poor chance this season; and the young wheat looks very backward, with a good deal of misplant. In some parts the early-sown pieces alone are said to be good, and others to have suffered most. On the whole the prospects of a large crop seems remote, and without very propitious weather next to impossible. The damage done to the root crops by the repeated and severe frosts has been very serious, and many lambs have been lost. The spring, therefore, opens rather darkly, with much wheat yet unsown; but, on the other hand, the heavy rains and snows since autumn have replenished the wells beyond what has been known for several years, and there is no longer any fear of drought for some time to come. The wheat trade, notwithstanding a great deal of injury to the newly-thrashed samples, has ruled firm; and as dry parcels have become more plentiful, they have gone off pretty readily, at fully 1s. per qr. more than during the past month. With a yet plentiful stock of good foreign and old English held by farmers, millers, notwithstanding a limited supply of thick parcels, have long kept reserved till necessity has made them more free in their purchases on favorable opportunities; and as March winds may be expected to improve the condition of the ricks, a better tone of trade seems highly probable. Still 'the hope' of agriculturists has been so long deferred by the permanence of low prices, that many, losing heart, may cut away their chances just on the eve of realization; and it must be admitted that without some disaster, agricultural or political, a sudden or material rise seems distant. The shortness of the feed has brought on a better demand for low-quality barley and lined-cake, as well as given more firmness to beans and peas. The prospective adoption of the principle of free trade in France no longer exercises any influence in that country or here. There the wheat trade has lately been improving; and as the floods have done much damage in several departments, and the last crop was deficient, there is more likelihood of a further advance than a retrograde movement.—Belgium, Holland, the Baltic ports, Switzerland, and the interior of Germany, as well as Italy, show an upward tendency; while many parts of Spain and Portugal give quotations far above English prices, but the growing crops in these early countries are said to have a very favorable appearance. The Danubian ports have been dearer for wheat; Odessa has kept firm; and the United States, for their best wheat and flour, show great steadiness, with prices quite out of range for export.—The late imports of flour all leave a loss, or are held at rates which prevent business.

—A bill has been introduced into the Senate of the United States to provide half a million for the extension of the capital at Washington.

## Political Notes of the Week.

—Mr. Cobb, the Secretary of the Treasury, it is announced will not permit his name to be presented at Charleston as a candidate.

—The American consul at Tangiers, and been received in the most friendly manner by the Moorish authorities.

—It is said that \$20,000 have been subscribed in New York to aid in carrying the election in Connecticut in favor of the administration.

—The election in Nebraska of delegates to a convention to form a State constitution has resulted in the choice of 86 republicans and 12 democrats, in 40 counties.

—There are rumors among the correspondents of the press from Washington, that a personal conflict took place between two Senators at the caucus called to discuss the resolutions introduced by Mr. Davis of Mississippi.

—The Pennsylvania delegation to Charleston have made a contract with the steamer Keystone State to take the members to Charleston and board them while there, at the rate of \$80 per head.—There will be one hundred persons in the party.

—The case of Howard vs. Cooper, in which Mr. Howard claims the seat of Mr. Cooper, who now represents the first district of this State in Congress, was discussed in the House of representatives last week, and a resolution introduced by the committee on elections, refusing Mr. Cooper further time to take evidence.

—The House committee, known as the Covode committee, have begun their sittings, and have had Cornelius Wendell to testify before them, relative to the expenditure of money to influence the Pennsylvania elections. Mr. Wendell appears to be in general request as a witness before all the committees that take up the investigation of jobs.

—Despatches from Japan, sent by consul general Harris, indicate that affairs are not progressing as smoothly in that country as was expected. The high dignitaries and servants which are to visit this country are to be seventy-three in number; they are to be entertained at the public expense.

—The chances of Mr. Hunter of Virginia for the nomination at Charleston seem to be on the ascendant. Estimates have been made that he can get over one hundred and twenty votes on the first or second ballot. All the Southern States are counted for him.

—A letter from Edward Bates of Missouri, in reply to questions asked him by a committee of republicans, on the political questions of the day, has been published. It is received with much favor throughout the country by members of that party.

—Mr. Thomas of Buffalo has offered to furnish the postoffice blanks at 94¢ cents less on the dollar than they have heretofore been done for. That is to say, he is willing to print for 5¢ cents what he has heretofore been paid one dollar for doing.—This is pretty strong; if the Government only holds out, we have no doubt offers will be given to do the work for nothing and pay the treasury something for the privilege.

—There will be no change in the place of hold-the national democratic convention. The central committee have decided that nothing can be done to make any change. In fact, it would be a very injudicious move at the present time.

It is settled beyond doubt that the democratic convention will be held at Charleston. The democratic national committee, in answer to inquiries sent on, learned that they could not be accommodated with board at less than five dollars per day, this rate to commence with the 15th of April, or several days before the convention opened.

—The general election in Connecticut takes place next Monday, and both parties are busy, on the principle that "eternal vigilance" is the only price at which the charms of liberty are to be enjoyed. The election in this State is however looked upon with much importance as being one of the New England States in which a decisive election comes off before the great nominating conventions meet; and also as having in some measure an influence upon Rhode Island, the election in which takes place on the Wednesday following. Should the administration carry both of these States, it would be considered quite an omen on New England States, as all are now republican, and might alter the programme both at Charleston and Chicago. Hence the election in Connecticut is looked for with a great deal of interest by the politicians, and both parties are doing their very best to carry the State.

## Mexican News.

The capture of the two steamers intended to aid Miramon, and which were fitted out at Havana with stores to aid in the siege of Vera Cruz, is still unexplained. The dispatches so far show that the whole affair grew out of the incapacity and stupidity of the officers in charge of the steamers: first, in not showing their flag, and then in firing on the boat and crew carrying the flag of a vessel of war of the United States. What is to be done with the steamers and crew now that they are taken seems a matter of some doubt, for they cannot very well be considered as war prizes, as the United States is not at war with Mexico; neither can they in justice be considered as pirates, as some claim, as the not hoisting of their flag in Mexican waters cannot be considered an act of piracy. The firing on the boats with the flag of the United States hoisted, was an act of hostility unexcusable, and most certainly was rightly replied to by the vessels of the United States. Nothing has been done at Washington on the subject as yet.

From the statement made by some of the prisoners it is gathered that the steamers were signalled from the castle of Vera Cruz on the 6th, but made no reply; that the flag ship of the United States squadron also signalled them to show their colors, but no reply was made, when they steamed past Sacrificior, where the vessels of all nations were lying, and went to Antor Lizardo, a little bay 15 miles below Vera Cruz. Here Gen. Miramon had previously hoisted a flag to indicate the place of rendezvous. Both steamers still had steam up, and seemed to have taken position as if to have made good their escape, if pursued. On the arrival of the Saratoga, however they were

basely engaged communicating with the shore, and, though the moon was shining clear as day, did not see her approach till too late. They were dreadfully frightened, and did not seem to be decided at first what course to pursue. In the mean time, the Saratoga sent out a small boat to demand their nationality. They fired upon it twice as before stated. The Saratoga then opened a broadside upon the Gen. Miramon, on board of which was Com. Marin, and came near sinking her at the first shot. The steamer returned the shot, but, in the meantime, got under way, naturally anxious to get out of so hot a place. The Indianola pursued her and soon came up with her. The Miramon showed fight, but the Indianola returned her fire, and finally boarded her at the point of the bayonet. It was in this engagement that the Indianola had her pilot-house carried away by a cannon shot. She also received other slight damage, but nothing to in any way disable her. Nor does any one on board appear to have been wounded, except Gen. Golconia, who received a slight wound in one of his hands.

While this was going on, the Saratoga was paying her respects to the Marquis de la Habana.—This was the vessel that cleared from Havana as a Spaniard. She did not offer much resistance. A single shot from the Saratoga brought her to, and then for the first time she hoisted the Spanish flag. This affair finished, the Wave, until now in attendance upon the Saratoga, went to the aid of the Indianola, from which the Gen. Miramon was making a desperate attempt to escape, after once being boarded. In her flight, however, she ran aground, and after a few shots finally surrendered without resistance. She was not gotten off, however, till two days after, and then only by the aid of her consort, the Marquis de la Habana. She was finally towed into Vera Cruz by the Indianola, while the Marquis de la Habana had the unexpected honor of returning the compliment, by towing back the Saratoga.

## Foreign Events.

Advices have been received from Liverpool to the 15th instant, and the affairs of those portions of the continent that are exciting the most interest seem to be in a fair state for settlement, and also for war if it should happen to break out, which is not at all unlikely.

The great question of interest was the election by the people of the States composing the Central Italy, to decide whether they would have a government independent of Sardinia, with a sovereign of their own, or whether they would annex themselves to Sardinia in a constitutional method, having Victor Emmanuel for their sovereign. The election has shown that the people of Italy are shrewd thinkers and politicians; it took place on the eleventh and twelfth of March.

Immense numbers of people assembled in all towns, and much enthusiasm and confidence was evinced. Admirable order was maintained.

The despatches as yet only show partial returns, but these are of the right stamp. In three of the principal cities of Tuscany, namely, Livorno, Pisa and Leghorn, the vote for annexation to Sardinia stood 37,693 against 338 for a separate kingdom. In Florence, the most populous one of all, the vote was 101,881 against 2,899 for a separate kingdom. In Bologna, a city belonging to the States of the Church the vote was twenty-one thousand against two. In the Duchy of Parma, the chief city Parma, gave a like result. In fact, nothing remains now to be done but to carry on this grand movement to its consummation, and Cavour and Victor Emmanuel are pressing it forward as fast as possible. In the meanwhile, knowing that his kingdom must be maintained by force, the Sardinian army has been increased in every department of arms and now numbers one hundred and fifty thousand men; so that he is prepared to have the French army of occupation leave, as proposed by Napoleon, whenever the annexation takes place.

Tuscany will probably be taken possession of by Piedmontese troops during the week following the elections, when we may hear a fulmination from Rome. It is said that a bull of excommunication is ready to be issued. So we may look for a new example of Henry the Eighth form of resistance to this attempt of the church. Papal bulls are not now of half so much consequence as good Short horns.

The opposition to the annexation of Nice and part of Savoy to France is still the subject of negotiation, and will probably be carried out according to certain forms, amongst which is the submission of the question to the people of the territory to be annexed. The question has been brought before the British parliament, and the opposition to the measure there seems to be very slight, and certainly is not sustained by the ministry.

The government of Naples seems to be getting worse and worse, the new king, like Rehobam, proving a harder taskmaster than even Bombs himself. Arrests and imprisonments are being made on a scale that is spreading terror and disaffection amongst all classes.

The second campaign in Morocco has commenced, and the spahis are now marching on Tangiers. On the 11th of March the Spanish advance was attacked by the Moors and tribes of the Kabyles, who were repulsed with much loss.

In England, the proceedings of Parliament have chiefly been occupied with the discussion of revenue measures, in which the ministry have been well sustained, and the Italian question. D'Israeli and the opposition denounced the course of the ministry and the annexation of Savoy, but Lord Palmerston and his friends replied, that if the Great Powers would unite in a protest, France would not persist. If the Great Powers do not unite in this, it would be evident that there was no objection to the proposed measure of annexation. In fact, deny to France the right to annex Savoy, and it gives her the power to protest against every act of territorial aggrandizement that may be attempted by the other powers.—Russia, with her views in regard to Turkey and the Danubian Principalities, will not be likely to say much on the subject; and Prussia, that is made up of patches of Germany, and wanting more at the same time, will not probably utter any protest. Austria's opinion is of little weight.

## Scientific Intelligence.

Locomotives that burn anthracite coal are now used on the Reading railroad in Pennsylvania. The bars of the grates are hollow tubes of wrought iron that contain water and communicate with the boiler. These engines are proving much more economical than those that burn wood.

The Scientific American recommends a composing case, the bottom of which is made of zinc and perforated with small holes. The dust which printers are accustomed so often to "blow out," is thus allowed to pass through, and the case is kept clean, which every compositor knows is an important point.

Michigan Patents.—Geo. W. Osborn of Centerville, Mich., has obtained patent No. 27,467, for an improvement in grain cleaners.

Marcus Stephens of Detroit has taken out patent No. 27,488, for an improved self-adjusting reclining chair.

Reuben Wood of Grand Lodge, Mich., has taken out patent No. 27,494, for an improvement in jacks.

Improvement on the Caloric.—Mr. Henry M. Paine of Worcester, Mass., some what famous a few years ago for water-gas experiments, now claims to have perfected an engine, to be operated by heated air, which puts Ericsson's affair entirely in the shade—as the same power can be obtained, he says, with one seventh the quantity of fuel. His improvement is represented to be based upon the asserted fact, that "air which has been impregnated with a certain amount of moisture in the shape of vapor will readily expand by the application of heat, to seven times the bulk with which the same volume of dry or common air attains with the same degree of temperature."

On Belting.—We take the following important information relative to belting from the *Scientific American*: "My experience (of over twenty years) has taught me some facts. I have run the smooth or hair side next the pulley, but dropped it for the following reasons. Every one knows that the strength of leather lies in the hair side, and that also in about one-fourth the thickness of it, and all know that belts will wear out, and that when about one-fourth is worn the belt is not worth a straw. I now use the flesh or rough side to the pulleys, and treat it as follows: I run it free from doing any work, if possible—but it makes little difference—and give it a good coat of tanner's dubbing on the inside or working side. I repeat this two or three times in as many days, and the pores of the leather, from the effect of the softening influence of the application, become filled, and the inside or rough side becomes smooth as the outside. The smooth and strongest side of the leather is now preserved, and my experience has taught me that it will last six times longer than by your correspondent's plan. The belt that drives our machinery was originally a 10-inch leather belt, but is now stretched to about nine. The dubbing put on at first—about three years ago—made it as soft and pliable as I wanted it. It transmitted the power of a 10 by 28-inch engine to its full power, at 70 lbs. to the square inch; the tight or working side of the belt being under, and the slack side on top; a 36-inch iron pulley on the engine driving a 36-inch one on line shaft, the slack side will sag ten inches, and even one foot if doing full duty, and it never slips; it would pull down the shafting first."

This is my experience of twenty years with belts, and when I have treated my leather in the same manner, the same results have always been secured.

The above-named belt has not been touched except to re-lace it (when broken), for the past three years, and it has been running almost every day since it started.

I would be in favor of putting the smooth surface of belts next the pulleys, were it not that they are much more durable when the strong side is kept from wearing.—T. McG. Jr., Novelty Works, Dayton, O.

## General News.

—The Regents of the University are now holding their spring session.

—The wife of Mr. Donald McIntyre died at Ann Arbor last week, after a long illness.

—Lola Montez is coming to Detroit to lecture. Her lecture on Woman has been received with much favor.

—John A. Washington is preparing to remove from Mount Vernon.

—The New York police commissioners find it difficult to get a superintendent or chief of police.

—Subscription has been opened in Hayti for the widow of John Brown. One man subscribed forty bags of coffee.

—Souloque, the ex-emperor of Hayti, is boarding at the rate of \$3 per week, and his wife is said to be taking in washing to help pay the family expenses.

—A western Chess Congress is to commence at St. Louis on the 11th of April. Morphy and some other celebrities are to be present.

—The case of Beaubien vs. Beaubien, involving a large amount of property in real estate in Detroit, has been finally decided.

—The great breach of promise case at St. Louis, of Miss Carstang against the millionaire Shaw, is bringing out some points not creditable to the complainant.

—Judge Tany's health has improved so that he is now able to resume his seat on the bench. He is 84 years old.

—A stone from the tomb of Napoleon at St. Helena has been sent to the Washington Monument, by G. W. Kimball, U. S. Consul at that island.

—The subscription of \$1,500 to secure the annual tournament of the fire companies at Battle Creek has been made up.

—J. S. Bagg, Esq., the United States Marshal, is making the necessary appointments for taking the census, in the several counties of the State.

—The Lunatic Asylum at Kalamazoo is now open for the reception of male patients. Heretofore, the wards for females only have been completed.

—It has been at length ascertained that loss of life on board the Hungarian included 205 persons—the crew 80, cabin passengers 45, steerage 80.

—The immigration to Pike's Peak has commenced this season. Dispatches from St. Joseph, Missouri, state that numbers are daily arriving and departing, bound for the mines.

—The street dirt of New York a few years ago sold for \$40,000; last year it brought but \$12,000. It ought to be worth a great deal more, with the market of New York to back it up.

—The king of the gipsies in Ohio, Owen Stanley, died at Madison, Indiana. He is to be buried at Dayton, O. with great funeral ceremonies, by the side of a gipsy queen who died about two years ago.

—A pony express line has been started from Atchinson, on the Missouri river, and is to run through to San Francisco in ten days. The first trip is to begin with the third of April.

—One of the mail bags by the steamer Hungarian came through to Chicago still sealed and was there opened for the first time. Nothing but the extremest care on the part of assistant-postmaster Armstrong could have rendered those wet and crumbling fragments available.

—A most diabolical murder of three men on board a sloop outside New York bay, took place last week, and for several days the murderer could not be found. He was finally tracked and has been arrested in Rhode Island. The name of the murderer is Johnson, and the murders were committed that he might rob the vessel of about \$500 that the captain had on board for the purpose of buying oysters.

## SUBSOIL AND JOINTER PLOWS,

Manufactured by

Burnham & Co., Battle Creek,

Price of Subsoil Plow for one team, with draft rod,

Price of the Carter Jointer, or double Plow, for one

team, \$14.00. 18-2m

New Rochelle, Lawton, Blackberry.

PINE PLANTS, carefully packed and sent according

to directions, at One Dollar per dozen. Five dozen

for Four Dollars; ten dozen for Six Dollars. Direct to

18-4 CHARLES BETTS, Burr Oak, Mich.

A NEW, CERTAIN, and the ONLY CURE of Nervous Debility, Its Cause, Symptoms, Effects, and

Radical Cure. By a former engineer. For the benefit

of young men. Enclose two stamps simply. Address

Box 8191, Boston, Mass. 18-6w

WINDSOR NURSERIES,

OPPOSITE DETROIT.

THE stock of Fruit Trees—more especially Apples

and Peaches, both standard and dwarf—is larger and

finer than has been heretofore offered, and much supe-

rior to any that can be procured elsewhere.

Standard Apple Trees—About 30,000 of them; are

4 to 5 years from bud (not root grafted); 7 to 9 feet high,

extra strong and thrifty, with fine heads. These can be

safely removed and will bear the following year. Price

for best selection fine straight trees, \$20 per 100, or \$175

per 1000. Second selection will be sold in large quantities

lower.

Standard Pear Trees—5 to 10 feet high, very fine; many in a bearing state.

Dwarf Pears—The stock is unsurpassable, being

grown on a suitable heavy soil of moderate fertility with-

out manure and in an exposed situation; will be found

much harder and more thrifty than those grown on the

generally of nursery soils, which are unsuitable and

give too rank a growth.

Dwarf Apples—Very fine, extra strong, 3 to 4 years

old, on the Doucin stock.

Roses—Hybrid Perpetual, Moss and other hardy va-

rieties, strong plants, at from \$3 to \$4.50 per dozen, ac-

cording to size and variety.

Weeping Trees—Extra sized, 20 to 25 feet high; Scamptown Weeping Elm, Weeping Mountain Ash and

Weeping English Ash, at \$1 each, or \$8 per doz. Weep-

ing Willow, fine trees, 5 feet high, 25 cents each, \$1 per

dozen.

Catalogues sent on application enclosing a stamp.—

Orders accompanied with the cash will be promptly at-

tended to, carefully packed (for which a reasonable

charge will be made), and delivered free in Detroit ac-

cording to directions. JAMES DOUGLAS.

Windsor, March 30, 1860. 18-3w

CAHOON'S PATENT

BROADCAST SEED SOWER!

For Sowing Wheat, Oats, Barley, Grass

Seeds, &c.

THE HAND MACHINE sows from four to eight acres

per hour at a common walking gait, throwing out

Wheat about forty feet wide and Grass Seed twenty feet.

The HORSE POWER MACHINE at the usual walk-

ing gait of a horse sows from ten to fifteen acres per

hour, throwing Wheat about sixty feet at each pass.

The vast superiority of this machine over all others,

as shown in the perfectly regular and even distribution

of the seed, and the wonderful rapidity with which the

work is performed, combined with their perfect simplicity

and durability, have already placed them in the front

rank of labor saving agricultural implements.

A saving of three-fourths of the labor and one

fourth of the seed used in hand sowing is effected by

using these machines. A person entirely unused to sow-

ing by hand, can use either machine with perfect suc-

cess. They are warranted to give perfect satisfaction and

to save their cost in less time than any other farm imple-

ment yet introduced.

Large numbers of these machines have been sold, and

in all instances, when proper care has been used in their

operation, they have given the most perfect satisfaction.

These machines can be purchased of Agents in all the

principal places in the State. For further particulars

address

P. B. SANBORN,

General Agent for Michigan and Western Canada,

Office at B. B. & W. E. Novell Hardware Store, 86

Woodward Avenue Detroit, Mich. 18-2m

NEW BOOK ON GRAPE CULTURE.

BY WILLIAM BRIGHT,

LOGAN NURSERY, PHILADELPHIA, PA.

Just published,

BRIGHT'S SINGLE STEM, DWARF AND RENEWAL SYSTEM OF

GRAPE CULTURE.

Adapted to the Vineyard, the Grapery, and the Fruit-

ing of Vines in Pots, on Trellises, Arbors, &c.

In this work full Directions are given for Cultivating

and Fruiting Pot Vines; A new system of Pruning

for the Vineyard; New Method of making Vine Borders;



# The Household.

"She looketh well to the ways of her household, and leteth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

## THE TEST OF FRIENDSHIP.

BY JOHN G. BAXE.

Some years ago, when I was young, And filled with hope and pride and folly, Ere sorrow came, and o'er me hung Its gloomy pall of melancholy, I had a friend of just my years; I loved him with a deep devotion; His griefs and joys, his hopes and fears, Produced in me a like emotion.

I toiled for years to win a name, Through sleepless nights and days of trouble, To learn this truth at last, that Fame Is but an empty, air-blown bubble. My friend sought wealth, and often wrote That he was rich, and loved me dearly; And always closed his friendly note With "Yours most truly and sincerely."

And once he wrote: "My dear old Chum, If you are short—now don't be silly— Just drop a line and name the sum To me, your friend and crony, Willie." But still I had a foolish pride To keep from him my little pinches; We like, if possible, to hide Our wants from one who never flinches.

And thus I labored late and long, Until my hopes and nerves were shattered, Until my health, which, never strong, Gave out, and then my friends soon scattered; For they had learned that I was poor: Now penury is not disgraceful; But to the rich it shuts the door, And makes its victim seem distasteful.

And now, I thought, since health has flown, My ancient, wealthy friend will aid me; A small amount, a trifling loan From one so true will not degrade me. For still he wrote, that better far He loved me than a blood relation; He talked about his "lucky star," His wife and means, his wealth and station.

Then with a faltering pen, one day, (I had not nerve to do it boldly), I wrote, "I have my rent to pay." Nor dreamed that he would take it coldly. I waited long; I watched the mail, Till all my clothes were growing seedy; It came at last; I read (in jail) "Fee nearer friends, just twice as needy."

Thus ended one of boyhood's dreams, As many a dream before has ended: Friendship is rarely what it seems— With money often closely blended. I left my books, and earned my bread By earnest, healthy, patient labor, And sleep serenely in my bed, Nor owe a dime to friend or neighbor.

The moral here is easily shown, If they who read will only heed it: To test a friend, just ask a loan Of money when you really need it. Another lesson may be learned, Unaided by the light of science: That gold and fame are only earned By patient toil and self-reliance.

## City Fashions.

"What are the fashions in the city, this spring? Just take a glance from your office window at the ladies on the street, and tell us how they look."

Thus writes Jenny from the country. As to fashions, Jenny, you would think by seeing them on the street that every woman had one of her own, and that she carried it out to the fullest extent of her fancy, and her means too. Lucky it is for those who have to foot the bills if they do not sometimes go beyond the latter.

As to their appearance, or how they look; why, just like so many half-grown girls with their very tall grandmothers' dresses on. To look at them sailing and trailing up one side of the avenue and down the other, you would think, speaking somewhat paradoxically, that the height of their ambition lay in the length and richness of the material they were able to trail in the dirt at their heels. It is nothing at all to drag half a yard or so of two-shilling delaines through the filth of unswept sidewalks and crossings, but to throw out the same length of the richest, costliest and heaviest silks, merinos and velvets, and drag them with the coolest unconcern through "thick and thin," that is *fashion*, and that is what fashionable ladies are proud to be seen doing. Somebody, versed in such mysteries, tells us that these trailing skirts are faced with a kind of varnished leather to prevent the wet and mud over which they are drawn from striking through. What refinement!

But these fashionable street-sweepers seem very happy in their humble occupation, so let them pass, as pass they will.

In color, the prevailing tint for dresses has been blue. During the pleasant sunny days of the month past, that brightened up our city, and brought out the fashionable butterflies from their chrysalis wrappings of woolen hoods and winter cloaks, full one third of the gayest dresses on the avenue were of blue silk, heavy in quality and generally dark in tint, but varying from the purplish blue of a morning-glory to the more delicate hue of the blue-bird's wing. But their reign seems to have been short. They have vanished as suddenly as morning-glory blossoms after a night of frost. At present a most agreeable

confusion of colors and patterns seems to prevail—agreeable, because so convenient; as everybody can wear just what they happen to have, and nobody knows whether it is in the fashion or not. There will doubtless be a more settled order of things with the coming in of steady, warm, spring weather.

"Are hoops going out?" Jenny asks. Yes; small ones are going out—as large as ever they can stretch! All the philippics of the newspapers, added to all the ridicule and dry goods that can be piled upon them cannot crush them, nor make them contract their spreading dimensions.

It would puzzle any one to give a description of the things worn in the name of cloaks, mantles, mantillas, &c. They are in every possible form, size, color and material; round, pointed, cat-cornered (?), sack-fashion, tight, flowing; woolen, velvet, silk, crochet, fur and cloth; and with every variety of trimming. Shawls are worn too, of all qualities and colors, and seem to be as much the fashion as anything else, with those who choose to wear them.

The little inverted saucers, worn on the head in the place of bonnets, do not as yet give any indications of growing, though it is said, by those who should know, that they will take a start this spring and shoot up in a nearly perpendicular direction, at right angles with the tops of the heads they adorn. All these things that are to be, in the way of fashionable dress, Jenny will doubtless learn in due season from sources whence the laws of fashion emanate; and she will also learn from the wisdom of years and experience, that her own good sense, aided by the taste and judgment of a cultivated mind, will be the best fashion-plate she can consult with reference to the adornment of her own dainty little person.

## A Reply to Mr. Stunner.

I do not know as the FARMER ought to be used by husbands and wives as a medium for showing up each other's faults to the world, and though I felt some interest in the little dispute between "Farmers' Wife" and "John Farmer," I did not intend to take part in it, as I am so well satisfied with my own family management that I can afford to let others get what satisfaction they can from public quarrels; but when that letter of Mr. Perfection Stunner came out, I thought it was a little too much. I cannot have that pass by in silence, and let that provoking man think he has the whole field to himself. I would like to have him know that there are two sides to the question of family government. Some women have no idea of management whatever, and Mrs. Stunner must be one of them. Now if she had begun with my plan in the first place, and persevered, Mr. Stunner would never have had the audacity to write such an article as he did. He would not have had the *spirit* to do so. Ever since the first day of my marriage with Mr. Meechum, I have continued to impress him with the idea of my intellectual superiority, and now he would scarcely dare say his soul was his own without first asking me if he might. It is an invariable rule with me, never to permit him to make a remark upon any subject whatever, without criticizing or ridiculing him in such a way as to make him wish he had held his tongue; if company is present, so much the more complete is my triumph as well as his mortification. Indeed, when I have company I never miss the opportunity of letting them know how much I feel myself his superior. He is naturally a good natured soul enough, and would like to indulge in little pleasantries of one sort or another, but you will never catch me pretending to be pleased with anything he says or does. I "pooh" at his jokes, or turn them against him in serious earnest; I sneer at his opinions, and mock his attempts at wit, and contrive in every way to make him feel that I look upon him as a ninny. Any husband will soon begin to act like one too, under this treatment, and in a short time the proudest spirited man may be made as tame as a whipped puppy.

I have written this hurried sketch simply to show Mr. Perfection Stunner that all wives are not like him, and to say to him that it is very well for him that he did not fall into the hands of Pompeona Masters, now

MRS. P. MASTERS MEECHUM.

Which is Josh?—What's that a plotter on?" said a countryman in our hearing the other day, to the proprietor, who was turning over some engraving.

"That, sir," said the dealer, "is Joshua commanding the Sun to stand still."

"Du tell! Well, which is Josh, and which is his son?"—*Ex.*

A lady named Gibson died in Arkansas from the effects of using snuff to "dip" her mouth with. She fell asleep with the mop in her mouth, and the poison of tobacco was swallowed, and killed her.

## Noted People of the Bible.

BY BLOW JAMIE.

### NUMBER ELEVEN.

Esau.—There is a singular attraction in human friendship between opposites. The grave and the gay, the old and the young, the philosopher and the unlettered are drawn together by this principle. Few men admire the faculty in which they themselves excel, but behold with astonishment and envy the talents of their neighbor. It is true there must be some similarity also. The sentiments they hold in common, supply the food, but dissimilarity of disposition must afford the seasoning to the mental feast—There is in all men a general resemblance yet a universal variety; hence the enjoyment of conversation.

The modest and retiring Isaac had a lively energetic wife. They had two sons as different in disposition as themselves. Isaac loved Esau, who resembled his mother; Rebekah loved Jacob, who with the talents of his mother, possessed his father's disposition.

Esau grew up a hairy man, with a rudimentary complexion, and strong, active limbs. I suppose the abundance of his hair might be ascribed to the strength of his constitution, and to his habits, being so much in the open air hunting almost naked. The rocky heights of Northwestern Arabia were his favorite resort, where he chased the light gazelle, and the bounding hart, nor did he fear to encounter fiercer game. Here he afterwards built a city on the side of a lofty hill, so steep, that the roof of one house was often on a level with the door of the next. Indeed many of them were like eagles' nests stuck in ledges of the rock. He and his descendants must have been like antelopes to climb such steep.

The ruins of the city can be seen to this day, but the whole region round is nothing but a bare rocky mountain. No doubt it was then clothed with luxuriant verdure. There are men in this State who will tell you that they have seen heavy crops of corn raised on New England's stony hills, where it was necessary in spots to carry earth in a basket, to cover the seed. I have seen myself, in Pennsylvania, several trees of considerable size growing on the top of a rock, thirty feet from the ground. The only mould they had to grow in, came from the decay of moss and leaves. The roots of a white birch wandered down the bare side of the perpendicular rock, in search of the ground, and clinging to the stone seemed to draw nourishment from it. Why the land of Eden is now so sterile, I cannot tell, except that an ancient writer says, that God sometimes turns "a fruitful land into barrenness" for the wickedness of those that dwell therein." Ps. 107, 34.

Isaac loved to eat of Esau's venison, especially when made in what he called "savory meat." Hunters dress venison in this country by a very simple process, which they call jerking. The lean fleshy part of the deer cut in collops across the grain, is salted down a few hours with very little salt. It is then hung on skewers over the glowing embers, and in twenty-four hours it is dried to a crisp, so hard that it is often laid on a log and broken with a hatchet. It is then so sweet that it almost melts in the mouth, and a small piece a day, would sustain a man while traversing the woods, without any other food. How Esau prepared his savory meat, I do not know, but I suppose he prepared it as they do in that country now, highly seasoned with salt and spices, redolent with garlic, and strong with butter and vinegar. You and I young reader, would not like it that way, but tastes are different.

It was not merely for the venison Isaac loved his first born. He delighted to hear his adventures—how from the ledge of the rock he waited the approach of a deer, and with a well directed arrow, brought down the leader of the herd; how in the thicket he was pursued by the stealthy tiger, and when his cunning foe made the fatal spring, he received him on the point of his glittering spear, and with a savage yell he yielded up his life. Hunters are apt to magnify their exploits, but the bright and spotted skin of the leopard, and the huge antlers of the stag, would be undisputed trophies of his skill.

We may well suppose that when the pious father listened to the stories of Esau, he took occasion often to turn his son's attention to the power and goodness of God, who taught his hands to war and his fingers to fight. This, however, had no other effect than to restrain his son's profanity in his presence. The promise made to Abraham of the land of Canaan which Jacob and Joseph so highly prized, was to him of little account. Like all worldly minded men, he considered a bird in the hand worth two in the bush. The present was all to him. His birthright, which secured to him a double share of this inheri-

tance, he lightly esteemed. He returned one day hungry and weary from an unsuccessful excursion. Jacob had just made some very nice soup, with wild peas in it. Esau requested a mess of the pottage. Jacob asked his birthright in exchange. This the elder brother bartered away, confirming the bargain with an oath. He then ate a hearty dinner of bread and soup, and went away thinking little of what he had done.

Long after this, Isaac was sick, and thinking he might die, directed Esau to hunt some venison and prepare him a dish, that eating it he might give his last blessing. Rebekah hearing it made Jacob bring two kids from the flock which she prepared like venison. This he brought to Isaac and very wickedly passing himself off for Esau, received the blessing of the first born. It will be remembered that Isaac was blind, and could not distinguish one son from the other, as Rebekah had disguised Jacob by covering his arm with the skin of a goat.

Hardly had Jacob gone when Esau came with his venison. Isaac felt a presentiment that though he had blessed the younger unwittingly, yet it was irrevocably done, and trembled when Esau spoke to him. The latter, like many men who have no religion, had some superstition. He despised the promise of God, yet valued his father's blessing. With tears he pleaded with his father to change the word that had gone out of his lips, but Paul tells us he found no place for repentance (in Isaac's mind). When he could not prevail he burst out into a loud wail, remembered that he had sold the birthright and cast the whole blame on his brother, although he had entered into the former transaction with full knowledge and consent. He now determined to kill his brother, and for fear of him Jacob had to flee to Mesopotamia where he lived for twenty years. At this time, Esau married the daughter of Ishmael, although he had two wives still living.

Twenty years rolled around, and Esau still cherished the same animosity against his brother, when he received a kind and respectful message from him to the effect that he was returning from the East to live in Canaan, and that he was very rich. I suppose the latter was mentioned to let Esau know that if he had purchased the birthright he would neither need nor ask any part in his father's personal property. The other, far from being softened by this kindness, collected a band of sturdy fellows and went to attack Jacob.

But as he emerged from the ravines of Judea into the lovely plains of Jordan, his eye was attracted by the beautiful sight of two hundred and twenty Syrian goats which shook their long, flowing, silken hair as they moved along. What are these? he roughly inquired from the driver, and was informed that they were a present for himself. Passing along he next met the same number of sheep with the same destination; next forty camels; after that, fifty head of neat cattle; and finally thirty asses. Contending emotions struggled within his breast; still he passed on, till he met his brother. Instead of a haughty brow, flushed with triumph, he beheld a countenance furrowed with twenty years of unusual toil and care, indicating also, in its placid expression, the elevating effect of a night spent in earnest devotion. That face, too, changed though it was, still recalled the pleasant intercourse of early days, when Jacob, except on two occasions, was a kind and respectful younger brother. Whenever he came in sight, Jacob commenced, according to the custom of the times in meeting a superior, to bow, but Esau stopped him by rushing into his arms. His impulsive nature now broke out into tenderness, and both wept. Jacob on this occasion gained a great victory and verified the saying of the wise man, that "a soft tongue breaketh the bones." Let my readers remember this when they are provoked.

Mrs. Stanton, a daughter of the late Judge Cady, addressed the Legislature of New York and the public, in the Assembly Chamber at the capital last week, on woman's rights. The *N. Y. Times* says: "Mrs. Stanton talked forcibly—it is needless for me to say that she talked earnestly, of woman's sufferings, sweetly of her endurance, eloquently of her rights. When she talked of her right to be protected in the enjoyment of her property, of her right to be released from the bondage of an ill-assorted marriage, she was listened to with marked favor. She pleaded these demands with the feeling of a true woman, and she carried the conviction that she was not asking more than policy as well as justice demanded should be conceded. When she claimed that her voice should be heard on the hustings, and her vote be received at the ballot-box, she was earnest, and eloquent, and plausible, but she must have felt that she was not convincing her audience—and she did not."

A householder in a western village in filling up his census schedule under the column headed, "Where born," described one of his children as "born in the parlor," and the other "up stairs."

## What Will Subdue Eddie?

BY MELLEN V. AUSTIN.

This is now the question vexing the spirit of Mrs. Quibbs. She don't like him any better than he likes her; there is no "affinity" between them.

Eddie is impulsive, and full of life and warm blood, while she has outlived the kindly impulses of her nature—if she ever had any—her life is of that kind that keeps her from dying, but would never impart life or warmth to anything else; and as for blood, there's not a drop of that in her whole body. She is one of those people who look as though they were made of putty, and you could dent them with your finger and the mark would remain. She is as cold as an iceberg. But there the likeness ends, for she is no brighter when the sun shines, and there is no probability of thawing or melting her.

She don't take Eddie's hand and speak pleasantly, but she clutches him by the shoulder and turns him around and looks at him, with those beamless eyes that never wink nor moisten, but look as though they were cast of lead and varnished, they are so cold and hard, and yet have a sort of glitter on them; and her words come out as square and thin as her lips are, and she says: "If Eddie had several good whippings it might save him from the gallows some day. What are you going to do with him, and what do you think will ever subdue him?"

"If Eddie were your child, Mrs. Quibbs you would not talk so, and could not imagine a gallows for him in the future." Her child, it was the first time she ever thought of that, and for a moment she remembered that every culprit has a mother.

The several whippings, the kind she called "good," would change Eddie from a brave boy, to a cowardly one; from a confiding, loving boy, to a morose, sullen one; and as for the gallows, let us hope for humanity's sake, that, by the time Eddie is a man, civilization will so far advance that there will be none.

"But what are you going to do with Eddie?" Let him grow! The world will need a host of men that had nothing to do, when little boys, but grow—then let Eddie expand himself.

He wants enough to eat, and there is no danger but he knows the kind of food his system requires if you give him plenty of air and play, and put him to bed clean and in a good humor.

Young America has brains enough; but more of what is termed "back-bone," more sinew, and muscle, more good sound common sense are needed.

What do you think will subdue Eddie?—That's the great question. Nothing but love should subdue him. We should not want his spirit broken and subdued to the world—God gave him that as his greatest heritage. There is need "in the world's broad field of battle" of brave, independent spirits; yet the power of love must subdue hate and pride and cowardice in Eddie, and strengthen every germ of good in him. He must be taught restraint, but love must be the compelling power.

We must bind him to us by the strong cords of love, while we can, that will never undo their clasp, be he on the land or sea; and though for awhile he may forget the golden links that were forged day by day as he played and shouted and grew up to manhood, the time will come to him when he will gather these golden links to his heart as his only comfort and solace, and live in the sunshine of the days that wrought them.

In a far-off land among strangers, in dreams he lives the child-life again. If he wanders in a lonesome road, the flowers by the wayside tell the same love language that they did when he planted them in his little garden, or gathered them a heart-offering for his mother; the birds sing the same songs they did when he thought Heaven was so near that they reached it in a t. air flight.

However much he may try, if you have bound him by the chain of love, he cannot undo its clasp. It will subdue him when nothing else can. It goes with him around the world; it brings the angels to him when death demands the temple of clay; it reaches link by link to the celestial city and draws him up within its golden gates.

Oh! I think of so many little Eddies that have been subdued, but not by love—as promising, affectionate boys as ever laughed and played. There is one I call to mind now, and the remembrance of him saddens me, as it always does. He seemed a perfect child. Nature could have held him up to view and surveyed him again and again and been pleas-



ed with her handiwork. He was high-spirited, and his parents, in good faith too, undertook to subdue him. Yes, he must be conquered, it would never do to let him grow up with such a temper. The rod and the passions of his parents were the means used to subdue him. His father required as much work of the child as he could do himself. He made him a coward and a liar by accusing him of disobedience or neglect, by never trusting his word, or allowing an explanation, but always suspecting him of falsehood.

The child's bright intellect left him as he grew older, and oh, what a wreck he is now!

The last time I saw him, he said, "I am going West; I never want to see the face of a relation again. I hate my father. Home has no attraction to me. I respect my mother, because she is my mother. She has had a life of trial, and perhaps did the best she could. I used to think I would be a great man, a scholar, a philanthropist. I had great visions when a boy, and built high castles, but all have gone to the winds or been dashed to the earth, and I mean to try and lose myself in an attempt to make money—love has never done anything for me."

I once knew a man to make this confession; "I did but one thing in my life that I never could forgive myself for. I was very angry and whipped a little girl severely. She was never the same child after that; she suddenly grew older to me; her eyes never looked the same as they did before that time, and indeed I ceased to see in her my little Laura."

It is sad to see so many men who have outgrown and subdued the characteristics they possessed in boyhood. "Innocence, bride of man's childhood," is rejected and scoffed, and the man thinks it a weakness to go hand in hand with such a gentle guardian through life. Pure love is childish; boys are taught outside of the house that it is babyish to be fond of their mothers, and cowardly to obey them.

To make money, this is the "love that makes the world go round" to Yankees as a nation. Men sacrifice all of real good in time and eternity to the golden god.

All they care about Liberty, or the American eagle, is their impression on the coin. They lose every particle of the genial nature that characterized them when boys. Old age makes no wrinkles deeper than this insane love of money does.

Let us pray that little Eddie's "life of life" may not go out and be subdued by the hardness and wickedness of the world, but that love which conquers all, that "endureth all things," may subdue him, that he may be enabled by Love Divine to curb his reckless, headlong disposition, that his child's faith may never leave him, and that he may keep his soul pure; and while we pray, we must work for Eddie too, we must watch him, as those who must give a strict account to the master of the jewels entrusted to our keeping.—*World We Live In.*

#### Cleanliness.

Compare the dirtiness of the water in which you have washed when it is cold without soap, cold with soap, hot with soap. You will find the first has hardly removed any dirt at all, the second a little more, and the third a great deal more. But hold your hand over a cup of hot water for a minute or two, and then, by merely rubbing with the finger, you will bring off flakes of dirt or dirty skin. After a vapor-bath you may peel your whole self clean in this way. What I mean is, that by simply washing or sponging with water you do not really clean your skin. Take a rough towel, dip one corner in very hot water—if a little spirit be added to it, it will be more effectual—and then rub as if you were rubbing the towel into your skin with your fingers. The black flakes which will come off will convince you that you were not clean before, however much soap and water you may have used. These flakes are what require removing. And you can really keep yourself cleaner with a tumbler-full of hot water and a rough towel and rubbing, than with a whole apparatus of bath and soap and sponge, without rubbing. It is quite nonsense to say that anybody need be dirty. Patients have been kept as clean by these means on a long voyage, when a basinful of water could not be afforded, and when they could not be moved out of their berths, as if all the attentions of home had been at hand. Washing, however, with a large quantity of water has quite other effects than those of mere cleanliness. The skin absorbs the water, and becomes softer and more permeable. To wash with soap and soft water is, therefore, desirable from other points of view than that of cleanliness.—*Notes on Nursing, by Florence Nightingale.*

#### Seeing the Queen.

A lady correspondent of the *Independent* gives the following pleasant sketch of sight-seeing in London:

"As this is the gay season in London, that is, the time when the Queen is holding her court, and Parliament is in session, we hoped for a sight of Her Majesty and some of the distinguished people about her person. We therefore, in the afternoon, drove to the west end of the town, and some two or three miles from St. Paul's. We alighted at Buckingham Palace, which, you will recollect, is the town residence of Her Majesty. This building, I fancy, would hardly come up to your idea of a palace. It is, however, large, and occupies a very fine situation, with St. James Park in the front, and very extensive and beautiful grounds in the rear. When the Queen is in town, the Royal standard is seen floating from the centre of the building.

"Directly before the Palace is a broad graveled road for driving—then a high, beautiful iron fence surrounds the building; before this railing soldiers are constantly patrolling day and night, to see that no one intrudes upon the premises.

"For a moment, whilst gazing at the Palace, I thoughtlessly leaned against one of the iron posts. Instantly a soldier came to me and said, 'Stand back, if you please; no one is allowed to touch the fence.' For a moment my republicanism was up, but I soon cooled off with the reflection that every country must be permitted to make and enforce its own regulations. From this point we hastened on to Hyde Park Corner, the resort in the latter part of the day, of all the aristocracy of London. Here we took a chair, which is always to be let for a trifling sum, and for an hour or so watched the thousands of carriages and riders on horseback passing and repassing before us in their rounds through the Park. Many ladies left their carriages for the time, and promenaded through the broad avenues on every hand. This is a brilliant scene, and I many times wished you all by my side to enjoy it with me. It is decidedly the place to see London. Here were lords and ladies without number, with powdered footmen in costly livery, each vying with the other in seeking to make the most display. Here, too, the merchant princes of London congregated, and make a more gorgeous appearance even than many of the nobility.

"Between five and six we were told the Queen would soon make her appearance for her daily drive, so we stationed ourselves by the side of the great arch, through which she must pass, and waited patiently for her approach. The civil policeman near us said we should not be obliged to wait long, for the Queen was always prompt. He told us we should recognize her carriage by the scarlet outriders and footmen. Very soon we noticed a general stir; the people were all ordered back from the railing, and before we had hardly time to turn our eyes in the right direction, the horses came prancing past us, the Queen smiling and bowing as she recognized the up-lifted hats and waving of handkerchiefs. The view was a hasty one, but good. It is singular that though she daily takes this drive when in town, there is always a crowd to see her pass, and a general shout of welcome. Prince Albert usually rides on horseback by her side, accompanied by one of his gentlemen. On this occasion, one of her ladies was seated by the Queen, and two of the Princesses opposite. There was nothing in their apparel or appearance to distinguish them from other ladies, and they would only be recognized by their appointments. The Queen is more pleasing in countenance than I had supposed, and her profile is quite striking. I have since had a better view of her, while walking in the Park, and in return for waving my handkerchief, received a bow and a smile all to myself. Perhaps in a sudden fit of democratic pride you say, 'Oh, a Queen is nothing but a woman; I wouldn't care a fig to see her.' True, she is neither more nor less than a woman; but God has placed her over that great country, which now embraces so large a part of our globe—the eyes of all nations are upon her, and no laws are made, nor even an appointment given, without her royal signature. She has great power for good or for evil; and what is better, we see that she exerts that power for the benefit of her people. She is a noble woman—a true wife and mother, and, like Queen Esther, whom we so much admire in Holy Writ, has the fear of God before her eyes. I confess to you children that, republican as I am in feeling and in principle, I could never see her frank English face, nor witness the joyous demonstrations attending her appearance, without feeling a soft moisture gathering in my eyes."

**Wanted a Lady.**—The following advertisement from a "woman," appears in the Philadelphia *Ledger*, and is a pretty good hit at the times:

**WANTED.**—A woman in respectable circumstances, living in the West End, and who can give the best of references, as to character, wishes to engage a lady to do washing and ironing for herself, husband, and six children. If the family is found to be too numerous, some of the children will be sent out to board. In order to make the duties of the situation as easy as possible, a lady of inferior quality will be engaged to do the heavy part of the washing, and a colored gentleman will be in attendance to do any work that may be considered unbecoming a lady—such as blacking boots, washing door steps, scrubbing floors, cleaning knives and dishes, making fires, carrying water, running errands, and other duties of a like kind too numerous to mention. She will have the Thursday night to herself, with full permission to use what flour, milk, butter, sugar, and eggs, she may require to prepare cakes and other dainties for the usual Thursday evening jubilee. She may also have, without asking permission, supply for her relatives and friends with everything from the family cupboard. A present will be made her at Christmas of a silk dress and a set of jewelry, and she will have liberty at all times to go out to balls, evening parties, and conversations. The advertiser never goes into her own kitchen, looks her presses, or exercises any impertinent interference in her family affairs. Address "West-End," at the *Ledger* office.

#### For Our Young Friends.

##### Geographical Enigma.

I am composed of 18 letters.  
My 17, 5, 10, 12, is a city in South America.  
My 2, 7, 15, 9, is an Island in the Mediterranean Sea.  
My 6, 8, 14, 16, is a river in Germany.  
My 15, 18, 12, 3, 11, is a high mountain in Sardinia.  
My 7, 5, 16, 1, 2, is a city in Belgium.  
My 13, 8, 6, 9, 8, is a city in Italy.  
My 10, 12, 3, 5, 7, 18, 9, is the capital of a group of islands in Oceania.  
My 4, 9, 12, 1, is a river in Hungary.  
My whole was a distinguished officer of the revolution, who was killed at the battle of Kutaw.  
H. W. J. Greenfield.

Answer to Charade of last week—PARSONAGE.

#### STATE TEACHERS' INSTITUTES.

THE SPRING SERIES of State Teachers' Institutes will be held under the personal direction of the Superintendent of Public Instruction, as follows:

At Osgood, Oakland Co., begins Monday eve, Mar. 19th.  
At Marshall, Calhoun Co., " " " 26th.  
At Hastings, Barry Co., " " " April 3d.  
At Portland, Ionia Co., " " " 9th.

Each Institute will continue in session ten working days. As the instruction is given in regular courses, it is desirable that those desiring to become members should be present at the beginning.

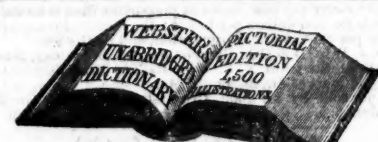
**A TEACHERS' EXAMINATION** will be held on the last afternoon of each Institute, to be conducted in writing, for such members of the Institute as may present themselves for examination, and recommendatory certificates will be given to those who shall pass the examination satisfactorily. School Inspectors and other School Officers are especially invited to attend this examination.

**ATTENDANCE AND EXPENSES.**  
No charge will be made for instruction, and assurances have already been received from most of the places that teachers will be entertained free of charge.  
The eminent value of these Institutes to the teachers and the schools has been thoroughly attested. Hundreds of teachers have acknowledged the great benefit they have derived from the exercises. All those desiring to teach during the coming summer are earnestly invited to attend and prepare themselves more perfectly for the great and important work they are undertaking to do. Young persons expecting hereafter to teach are also invited.

School Officers and citizens seeking teachers will do well to visit the Institutes, where every aid and advice will be freely rendered them by the lecturers, in selecting good teachers.

All who feel interested in the Public Schools are respectfully invited to extend this notice, and aid in securing the attendance of the teachers of their vicinity.

JOHN M. GREGORY,  
Superintendent of Public Instruction.  
Lansing, Mich., March 1st, 1886. 11-1m



**"GET THE BEST."**  
**Webster's Unabridged Dictionary.**  
**NEW PICTORIAL EDITION.**  
1500 PICTORIAL ILLUSTRATIONS.  
9000 TO 10,000 NEW WORDS IN THE Vocabulary.  
Table of SYNONYMS, by Prof. Goodrich.  
Table giving Pronunciation of names of 8000 distinguished persons of Modern Times.  
Peculiar use of Words and Terms in the Bible. With other new features, together with all the matter of previous editions.  
IN ONE VOLUME OF 1750 PAGES.  
PRICE \$6.50. SOLD BY ALL BOOKSELLERS.  
"GET THE BEST." GET WEBSTER.  
16-4w G. & O. MERRIAM, Springfield, Mass.  
The trade supplied by F. Raymond & Co., Detroit.

**FARM WANTED.**  
WORTH about \$25,000, with good buildings and fruit, by a man living in New York city, for a brother living in Grand Rapids, Mich., in part payment for an undivided interest in one of the best plaster beds and steam mills at Grand Rapids. Price \$10,000, which is about the rate that the other interests of the same property sold at before the D. & M. R. was built, and before the recent discovery of salt water, which must enhance the value of the property. Immediate possession will be guaranteed, as none of the present owners can attend to it at present. One half the cash in hand at ten percent interest. For full descriptions and further particulars, address ADIN J. HINDS, 400 Grand-st., N. Y.

#### CHOICE FLOWER SEEDS BY MAIL, POSTAGE FREE.

**COLLECTIONS.**  
No. 1—Contains 20 varieties of choice Annuals... \$1.00  
No. 2—20 varieties of choice Biennials & Perennials, 100 No. 3—Extra fine varieties of rare Annuals and Perennials... 1.00  
No. 4—Five choice varieties from Prize Flowers, of Truett's French asters, German Carnation and Picotee Pinks, English Pansies, Verbenas and Hollyhocks, each of which is sold at 25 cents singly... 1.00  
No. 5—Fifty varieties (including Collection No. 4) Annuals, Biennials and Perennials... 2.50  
No. 6—One Hundred varieties... 5.00  
All persons in want of choice seeds, will do well to order early, before the choice varieties are exhausted. Catalogues sent to any address upon receipt of a three-cent stamp.  
ALLEN & McELWAIN,  
Springfield, Mass.

#### HOWE'S IMPROVED HAY OR CATTLE SCALES.

**THE BEST IN USE.**  
FIRST PREMIUM OVER FAIRBANKS, at Vermont State Fair, '84 and '85.  
FIRST PREMIUM at 18 different State Fairs.  
SILVER & BRONZE MEDALS at American Institute Fair, N. Y., 1859.  
Howe's Scales for ALL Uses, have Great Simplicity, Wonderful Accuracy.  
Require no Pit: may be set on top of the ground, or on a barn floor, and easily removed.  
No Check Rod: No Friction on Knife Edges; all friction received on Balls. Weigh truly if not level.  
Delivered at any Railroad Station in the United States or Canada, set up, and warranted to give entire satisfaction or taken back.  
Send for Circulars and price lists, with account of trial of Scales between Howe and Fairbanks, at Vermont State Fair, to JAMES G. DUDLEY, General Western Agent, 93 Main st., Buffalo, N. Y.

#### CAST STEEL BELLS, For Churches, Academies, Fire Alarms, Factories, &c., FROM SHEFFIELD, ENGLAND.

HAVE been tested in all climates, Europe and America. Weigh less; cost less per pound; have better tones; can be heard farther than other bells. They cost 50 per cent. less than others.  
**THE BEST COMPOSITION BELLS.**  
Which are also sold by me at Makers' Prices.  
**BROKEN BELLS TAKEN IN EXCHANGE.**  
Or re-cast on short notice. Such bells will nearly pay for Steel Bells of same size.  
Send for Circular. Bells delivered in all parts of the United States or Canada, by JAMES G. DUDLEY, Sole Agent, at 93 Main st., Buffalo, N. Y.

#### HERRING'S PATENT Fire and Burglar-Proof Safes, WITH HALL'S PATENT POWDER-PROOF LOCKS, HAVE NEVER FAILED IN MORE THAN 800 DISASTROUS FIRES.

**The Safest and Best Safe in Use.**  
Delivered at any Railroad Station in the United States, or Canada, at the very lowest rates, by JAMES G. DUDLEY, Sole Agent, at 93 Main st., Buffalo, N. Y.

#### KIRBY'S AMERICAN HARVESTER!



#### The Most Valuable Implement for the Farmer.

"Contains the most valuable improvement of any Harvester in Use."

WE have the pleasure of offering Farmers the Improved Kirby's American Harvester for 1886, which stands now unrivalled for facility of operation, lightness of draft, adaptation to uneven surfaces, strength, simplicity and durability; and is pronounced by all who have tested the various machines in use, to be the most complete combined Reaper and Mower "either newly invented, or an improvement on any now in use."

At the last New York State Fair, it was the only Harvester that received a Premium among some forty machines on exhibition. The Judges awarded it a *Star Medal and Diploma*, as "The most valuable Machine or Implement for the Farmer, either newly invented or an improvement on any now in use." They say in their report: "We think the improvements put upon this machine since the last State Fair are of such a character as to justify entitle it to this award; and the exceeding simplicity and great strength of the machine must commend it to the farming community."

At the Wisconsin State Fair, last fall, it attracted especial attention, and after a very careful inspection by the Committee was honored with three *Diplomas*—a Mower, a combined Reaper and Mower, and for the one-horse Harvester.

It also received the First Premium as the best Combined Reaper and Mower, at the Michigan State Fair, and at other State Fairs and fairs during the year 1885. The Factory Price of the Improved Harvester for 1886, will be \$185; for Mower, \$110; for Little Buffalo Harvester, \$100—Mower, \$60.

For further particulars address L. J. BUSH, Gen'l Agent, Toledo, Ohio.

The Harvesters are sold by the following agents in Michigan:  
E. TINDALL, Tecumseh, A. Y. PARTLAND, Paw Paw,  
J. L. HALL, Hillsdale, J. F. HOLLY, Pontiac,  
J. A. COON, Kalamazoo, JOHN ALLEN, Plymouth,  
J. E. EARL, Bronson, WM. TAPP, do  
WM. B. BESSAN, Niles, A. A. KIRBY, Leslie,  
T. Y. LIMBROCKE, Trenton, A. O. & W. W. CHILDS, Eaton,  
M. ROGERS, Ann Arbor, N. ROBERT KIRBY, Mundy,  
W. S. SPENCER, Jackson, Wm. M. THURBER, Genesee,  
E. T. GREGG, Marshall, E. D. & H. GREGORY, Orono,  
O. H. FOOT, Grand Rapids, R. N. DYK, Ionia,  
S. H. LINTWORTH, Kalamazoo,  
F. G. LAZARUS & Co., Dowagiac.

#### WROUGHT IRON PLOWS, Subsoil Plows, Harrows, Grubbers, DRIVING TOOLS, &c.

The Plows, Harrows and Subsoilers were awarded the First Premium of the Michigan State Agricultural Society.

#### A. MOIR, NORTHVILLE, MICH.

THE undersigned is now prepared to receive orders to make all kinds of improved plows, cultivators and ditching and draining tools.

THE SUBSOIL PLOW, of wrought iron, has received the sanction and approval of the Highland Agricultural Society of Scotland, and is considered of the very best models for that kind of work.

THE SCOTCH-AMERICAN PLOW made by me, is of wrought iron, and is got up on the most approved model, possessing a lighter draft, and turns a cleaner furrow and does superior work. The style of mouldboard is new in this country. This plow is made with either iron or wooden beam and handles. Those made solely of iron cost \$25. The plow complete with wooden beam and handles, costs \$18, with wrought iron points, wheel on beam.

THE WROUGHT IRON HARROWS are made also after the most approved model, and have been tried and found satisfactory.

The undersigned also makes WROUGHT IRON GRUBBERS, CORN CULTIVATORS, and sets of DRUMS and DRUMS, and also CORN ROOT GRUBBERS, and IRON AXLE FARM CASTER, all of the most approved and finished workmanship.

Reference may be made to the Editor of the Michigan Farmer. All orders may be addressed to A. MOIR, Northville, Mich.

**Prince Albert Potatoes for Sale.**  
WARRANTED GENUINE. Price One Dollar per bushel, including packages; two bbls. to one order. Five Dollars: delivered at the R. R. depot. Address ASA U. SUTTON, Tecumseh, Mich. March 11th, 1886. 11-6w

#### IMPORTANT TO FARMERS.

**GEORGE BEARD,** Wholesale dealer in Oysters, Fruits, Game, &c., will pay the highest market price for Choice Fruit of all kinds. Game, Poultry, &c. Bassett House Corner, Detroit. 40-1y

#### THE BEST MACHINE

AND NO MISTAKE.

For the Harvest of 1886.

Double Hinge-Jointed and Folding Bar

**BUCKEYE**

**MOWER AND REAPER,**

*Fullman & Miller's Patent,*

MANUFACTURED BY

**Waters, Lathrop & McNaughton,**

JACKSON, MICHIGAN.

**A Perfect Mower,**

**A First Class Reaper,**

It has proved to be

**THE MOST DURABLE MACHINE**

AND OF THE LIGHTEST DRAUGHT.

And it works

**MORE EASILY & SURELY**

THAN ANY OTHER.

**IT IS THE MACHINE.**

This fact is so well established by the Farmers themselves, that there is no longer any occasion

for our incomparable list of GOLD MEDALS AND FIRST PREMIUM from

National, State and County Fairs.

What we wish now to say to

the Farmers of Michigan is

that any of them who have not yet ordered one of these machines, if

they want it FOR THE HARVEST OF 1886, they should lose no time in ordering it from us

or from one of our Agents, viz:

Gen'l Agt. for the State, E. ARNOLD, of DEXTER, Wayne County—HEATH & DRESSER, Bladensburg, Md., Detroit.

C. M. MANN, 108 Michigan Avenue, Detroit.

Oakland County—H. N. HILL, Pontiac.

Lapeer County—J. DUBKE, Pontiac.

Oakland County—J. DUBKE, Pontiac.

Macomb County and east tier of townships in Oakland—L. WOODWARD, Rochester.

Calhoun County—V. GIBBS, Homer.

G. B. MURRAY, Marshall.

BURNHAM & CO., Battle Creek.

Kalamazoo County—Dr. F. KANSOM, Kalamazoo.

Levenaw & Monroe—KEYES & FRIEZE, Clinton.

Washtenaw, east part—Geo. ALEXANDER, Ypsilanti.

HORACE WELSH, Pittsfield.

Oakland Co.—WM. HENDERSON, West Novi.

Ionia County—J. DUGARMO, Ionia.

Livingston Co.—FREEMAN WEBB, Pinckney.

The reputation of the Buckeye is so well established (embracing all real improvements and having some peculiar to itself which no other machine has or can have) that we have no fear that intelligent farmers in our State, who can procure this, will purchase any other for the purpose of reaping and mowing.

WATERS, LATHROP & McNAUGHTON, Jackson, March 31, 1886. 42-1f

#### AMERICAN AND FOREIGN STEREOSCOPIC EMPORIUM.

E. ANTHONY, 308 Broadway, New York. After May 1st, 1886, at 601 Broadway, two doors from the St. Nicholas Hotel.

THE Stereoscope is the most instructive, interesting, entertaining, amusing, and exciting of modern inventions. None are too young, none too old, none too intelligent, none too uneducated, to acknowledge its worth and beauty.

No home is complete without it, and it must and will penetrate everywhere. It presents to your view every part of the world, in all the relief, boldness, perspective, and sharpness of detail, as if you were on the spot.

Photographers are everywhere exploring Europe, Asia, Africa, America, in search of the grand and the beautiful, and the results of their skill are constantly enriching our stock.

We have an immense variety of paper Views of Scenes in Paris, London, England, Scotland, Ireland, Wales, France, Belgium, Holland, Switzerland, Spain, The Rhine, Versailles, St. Cloud, Fontainebleau, Tulleries, Italy, Turkey, Egypt, Athens, the Holy Land, China, India, Crystal Palace, also Groups Historical, amusing marine scenes, breakfast scenes, pianos, statuary, &c., &c. An exquisite assortment of Illuminated Interiors of Palaces, Churches, and Cathedrals of France, Italy, &c. The effect of these illuminated views is most remarkable. Every gentleman of wealth and refined taste should have in his drawing-room some of our exquisite views on glass, with a revolving stereoscope, showing 15, 25, 50 or 100 scenes. Nothing can be more fascinating, and one can offer no greater treat to a friend fond of the picturesque and beautiful.

Anthony's Instantaneous Stereoscopic Views are the latest Photographic wonder. They are taken in the furthest part of a second, and everything, no matter how rapidly it may be moving, is depicted as sharply and distinctly as if it had been perfectly at rest. This gives an additional value, for to the beauties of inanimate nature it adds the charm of life and motion. The process is the discovery of our own, and being unknown in Europe, we receive from London and Paris large orders for Anthony's Instantaneous views of American life and scenery.

Our catalogue of subjects and prices will be forwarded to any address on receipt of a stamp.

Parties at a distance sending us \$3, \$5, \$10, \$15, \$20 or \$25 can have a good instrument and such pictures as they may request, sent by Express.

Views alone, (without instrument) can be sent by mail.

Parties who wish to be advised of everything really valuable in the line that comes out, may send us their names to place on record, and we will keep them posted at our own expense.

Men of leisure will find Photography a most fascinating and delightful amusement. We are prepared to fit out amateurs with everything necessary for their success together with instructions "How to take Stereoscopic Pictures."

Importer and Manufacturer of Photographic Materials, Stereoscopes and Stereoscopic Views.

Merchants from every section of the country are invited to make an examination of our stock, as our discount to the trade will be liberal.

To Photographers.—First class stereoscopic Negatives wanted.

Send by mail a print unmounted, with price of Negative.

[Cut this out for future reference.] 8-5m

**"HARD TIMES NO MORE."** Any person (Lady or Gentleman) in the United States, possessing a small capital of from \$5 to \$7, can enter into an easy and respectable business by which from \$2 to \$10 per day can be realized. For particulars, address W. R. ACTON & CO., 41 North Sixth-st., Philadelphia. 9-12w



